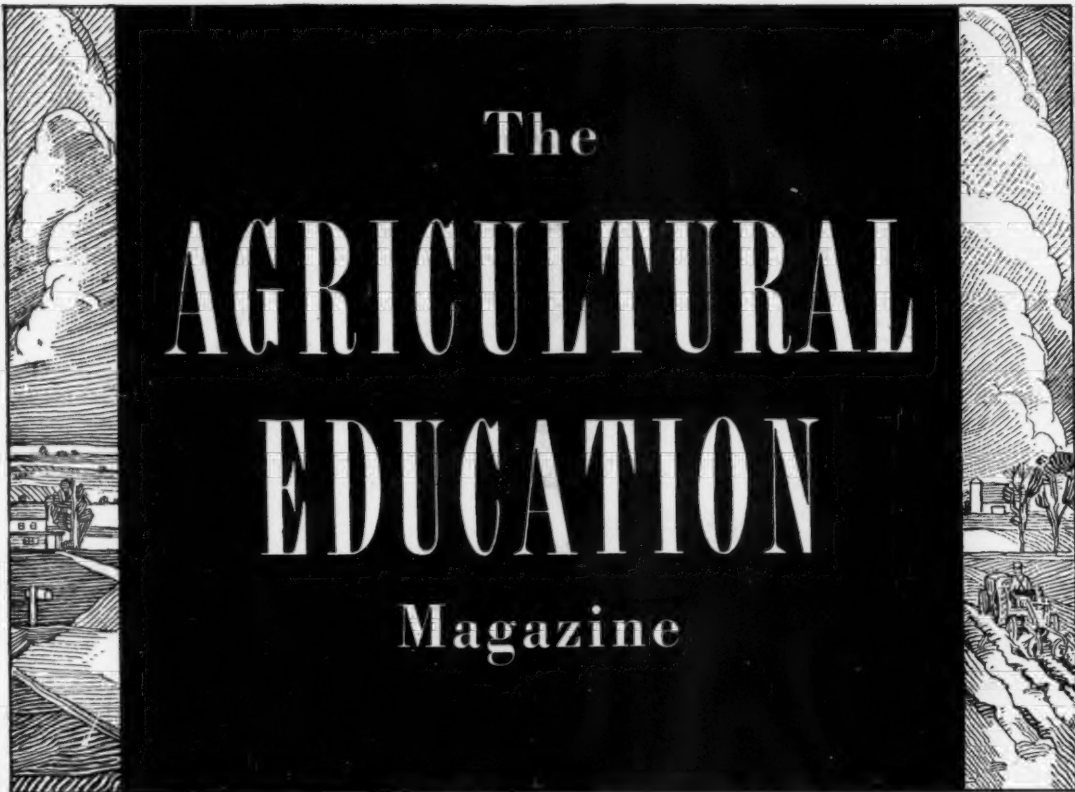


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April, 1940

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*The best thing about obstacles is that they make us  
prove ourselves to ourselves. Some of life's keenest  
satisfaction comes from doing things we thought we  
couldn't do!*

HENRY FORD



# The Agricultural Education Magazine

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

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# Editorial Comment

## Keeping Up to Date in Agricultural Education

**A**SPEAKER at a program on our campus a few weeks ago took as his theme "Long-Range Living." He developed the thought that people who call themselves educated must either adjust and adapt themselves to conditions or modify these conditions.

Instructors of agriculture, as "producers" of agricultural education, who would call themselves progressive, must take the "long-range view" in their own field. This does not mean chasing all the new "wrinkles." It is quite easy to become a faddist, and many teachers are. Others, fearful of the new, or too lazy to make the change, label the new as "theoretical" even without a trial. It takes a wise instructor to strike a middle course of rational progressiveness. The immediate problems are important to a teacher, but in order to serve his field and serve himself it is necessary for him to soar a little above the local problems of his own sphere and turn an "open mind" toward the trends, major problems, and issues in the whole field. He must inform himself, evaluate the ideas and opinions of others, and arrive at his own convictions. Current and back numbers of the *Agricultural Education Magazine* and the *A. V. A. Journal* are important sources.

What are some of these trends, major problems, and issues in agricultural education? "Dare We Face the Findings of Research?" A year or more ago some of you followed this controversy as reported in the *Agricultural Education Magazine*. It may be that the viewpoints have been reconciled, but the problem is a fundamental one. We should "dare" and, to the extent to which the results are trustworthy, we should, somewhere in the findings of research, come upon principles which will go a long way toward a real solution of our problems. It is the critical (not negative) attitude of mind toward research in our field. It must be good research.

In college circles there has been considerable debate over the efficacy of research activity on the part of the teacher in making for teacher growth. Some consider that the participation in "pushing back the frontiers of knowledge" is the way while others stoutly argue that the intensive study of the art of teaching itself, carried on by the instructor, leads to the promised land. It probably would be hard to find an instructor, the product of our agricultural colleges with their research divisions and emphasis on scientific findings, who does not aim to have the boys in his classes develop a ready knowledge of and wholesome respect for experimental results. But probably too often the same instructor will ignore or even oppose the research findings in education and agricultural education. If we claim to be progressive, it would seem that when confronted with a significant problem we should use available scientific data and as scientific a procedure as we can muster.

Are you an agriculturist or an educator? Dr. H. M. Hamlin of Illinois says that usually teachers of agriculture regard themselves primarily as agriculturists. Concerning this, he contends that we need a "Copernican revolution" in our thinking—that the real job is primarily that of educator. In this he does not depreciate technical training. What do you think?

Expanding programs give rise to regulating the supply of well-trained teachers. The teachers in the field should be interested in this, both from the danger of an over-supply of teachers and also the danger of lowering the quality of work if poorly trained or poorly adapted instructors are used. Patterns for teachers that are broader and better balanced in technical agriculture are a trend. Having a "major" in animal husbandry or agronomy is not a handicap; rather the difficulty comes because specializing in one field results in too many gaps in their contact with other necessary fields.

Here is an issue and challenge for both the instructors and teacher-trainers who send them out. Think it over.

Is guidance a part of your program? There is a strong trend toward acceptance of the function of guidance by the schools and by the departments in them. Much of this pertains to vocational guidance. In vocational agriculture, placement and

establishment in farming tie in closely. Some attention has been given to this for many years. Do you subscribe to it as an idea? Are you incorporating it into your agricultural program, and how well? You can, and doubtless have, given your boys some good service in guiding them in or out of courses in agriculture. The dividing line between your vocational instruction and guidance is often hard to draw. If your efforts have resulted in a considerable number of boys becoming established in farming, then you are probably proud of the results. Others have gone on to college. They have come to you with that problem and the question of whether or not to take agriculture. But what about guidance into or out of occupations in agriculture other than farming? Figures for occupations pursued by former agricultural students generally include one group of "occupations related to farming." It would seem doubtful if the instructors could take much credit for this group. Here is a big field and one which seems due for expansion.

Do you know of the new guidance service in the U. S. Office of Education? The progressive teacher will look into this area.

*The changing curriculum is, or should be, your big problem.* In some ways the vocational people have set the pace for the "academics." But do not think you can rest on your oars. Many cities are changing the curricula in their schools every five or six years, some more frequently, and some have a separate bureau of curriculum research and revision at work all the time on some phase of it. Teachers of agriculture must catch this new stride. Probably many of them are thinking of curriculum changes. In *Agricultural Education Magazine* for December, 1938, Dr. C. S. Anderson of Pennsylvania listed a sampling of 50 research studies being conducted by teachers of agriculture in the country. He said it was a fair sample of all. My check of his list shows that at least one third of them could be classified as curriculum problems involving both content and organization changes.

*Curriculum thinking and curriculum changes are really big problems. Get this thought thru following reasonable suggestions and principles, and half or more of your methods problems will take care of themselves.*

(Continued on page 198)

## Contributions of Leading Americans to Agriculture

The series of 14 articles which have appeared in this magazine under the heading, "Contributions of Leading Americans to Agriculture," has been reprinted in an attractive booklet containing 80 pages. This will make a valuable addition to the professional library of teachers, supervisors, teacher-educators, and others. F.F.A. chapters will wish to add it to their chapter libraries. Many high-school and college teachers of agriculture will plan to make this booklet a standard reference for class instruction and will want to order a number of copies for their libraries. The articles included describe the lives and contributions to agriculture of the following men:

Liberty Hyde Bailey  
Eli Whitney  
Cyril George Hopkins  
William Aron Henry  
Thomas Forsyth Hunt  
Milton Whitney  
Alexander Legge

Stephen Moulton Babcock  
Louis John Taber  
Henry Cantwell Wallace  
Eugene Davenport  
George E. Warren  
Cyrus McCormick  
Gifford Pinchot

Because of the many uses which can be made of this booklet 4,000 copies have been printed. Teachers of agriculture may secure copies thru their state supervisor or teacher-trainer, or directly from the Meredith Publishing Company, Des Moines, Iowa. Single copies are available at 15 cents each or, in orders of 20 or more, at 10 cents each.

Order today, to be sure that you get your copy, as a second reprinting will not be made.

A. K. GETMAN

## Professional

R. W. GREGORY

## Democracy Shall Not Be Plowed Under\*

J. W. STUDEBAKER.

United States Commissioner of Education

IN a recent article entitled "The Industrial Revolution Hits the Farmer," Peter F. Drucker has this to say: "The fascist dictatorships of Germany and Italy have rested above all on the support of the peasant masses. The desertion of the farm organizations was the final blow to German democracy, and ever since 1933 the Nazi regime has extolled the social and economic position of the farmer above that of the other classes in an attempt to maintain his allegiance." . . .



J. W. Studebaker

With this brief commentary in mind, you will more easily understand why I select the title, "Democracy Shall Not Be Plowed Under." A very great power resides in the hands which guide the plows of America. I think the title of these remarks expresses the quiet determination of those hands to use the plow to turn over the rich earth for peaceful planting and not to allow any forces to overturn our society and plow under democracy and freedom.

Yet even such quiet determination is not enough. There are serious and even baffling problems before us which call for a high social intelligence if we are to maintain the Republic. It is the failure of the democratic societies to meet real issues with relatively successful policies that is largely responsible for the reversion to fanatical dictatorship and the rising chaos of war. Many of these problems are the very ones which you have gathered here to study and discuss—problems of farm ownership, tenancy, soil erosion, prices and surpluses, marketing, and transportation.

When I come before you as an educator, I do not seek to divert your attention from these problems, but rather to direct the attention of farmers and educators to these problems. They are central targets for the sharpened wits of educated men. It is, in a sense, because we are plagued by problems that we are spending some three billion dollars a year on organized education in this country. Thru increasing the understanding of the vital issues confronting us, we hope to find solutions that will work in time to prevent the disintegration of democratic civilization.

The schools and colleges have no more important objective than the systematic study of the practical social and economic problems underlying our troubled times. And I have constantly made it one

of my primary points of insistence that this study must be organized for adults as well as for children and young people. . . .

From the first days of the Republic to the present hour, education—organized education—has carried the responsibility of making people fit for self-government. If there was one thing the founding fathers agreed upon, it was that representative democracy cannot long exist without an educated electorate. They and the leaders who followed them thought of education primarily as a means of making democracy work.

"It is not the mission of the teaching profession to force either young people or older people to accept so-called 'right' thoughts or to come to 'right' conclusions about controversial issues. That is the declared aim of education in dictatorships."

"The obligation to think is being forced on us by events. The teachers of the country actually prepare for the defense of democracy when they teach pupils how to think."

"While the broad purpose of education is to 'make a life,' one's life may be ruined if he cannot make a living."—J. W. Studebaker, U. S. Commissioner of Education.

John Adams put it this way: "Education is more indispensable and must be more general, under free government than any other." . . .

"Above all things," said Jefferson, "I hope the education of the common people will be attended to." . . .

Holding Fast to the Tradition of Control of the Land

Wherever you touch the subject of education in the history of the appeals for it, the central purpose for which it is advocated is enlightened citizenship. But please take note that Jefferson and the early pleaders for education for democracy lived in a society rooted in the land. The essential liberty was derived from widespread ownership of family farms and ownership of tools and places of business by craftsmen and merchants. This democracy of ours and the educational system it nourished were products of an agrarian society of men who counted on the land and tools for their independence. The almost self-sufficient families, knowing most of the factors touching their daily lives and affecting

their fortunes, could be secure in the newly won freedom if they could but maintain control of their land and tools and make governments, particularly the central government, perform efficiently and honestly only the limited tasks assigned to them. Their greatest fear was that the tax gatherers might take their land, source of their independence, into the custody of a faraway government to be distributed some day to loyal overlords who would reestablish the system of the landed aristocracy in which the common people would be reduced to a peasantry.

This keen sense of independence and the grim determination to be free from overlords and hereditary aristocrats explain in great part why the early educational system was dedicated to political literacy. This was an agrarian democracy in which freedom and ownership of land went together. Most of what we call vocational education was carried on, and very well for that time, by the farmer-fathers and the manufacturing mothers.

The Schools' Load Increased as a Result of Scientific, Social, and Economic Changes

But before the schools were well established as a means of making the new democracy work, the load on teaching was suddenly increased by new problems. The infant industries, which had been started during the War of 1812 and later protected by a tariff, began to grow and to change the agrarian society. Robert Fulton's steamboat, McCormick's reaper, Whitney's cotton gin, and a flood of new inventions challenged Jeffersonian democracy.

Factory owners imported thousands of workers to run their new machines and other thousands, seeking opportunities in the new and expanding democracy, escaped from their troubled homelands. The schools were faced with the new responsibility of teaching immigrants of different tongues and old-world backgrounds a new language as well as the ways of freedom. New and complex jobs outside the family farm and on it called for systematic public vocational education. Between 1812 and 1870 the industrial revolution changed the simple ways of independent agrarian democracy and the continent was ruthlessly conquered and exploited. But between 1870 and the end of the World War the rate of change increased by geometric proportions.

Technological changes, the huge influx of immigrants, the rise of a propertyless class of wage-workers, the growing interdependence of farm and city, calling for ever faster and cheaper transportation and communication, and the growth of the new impersonal corporate

business organization—these and other innovations put a strain on schools still struggling to achieve the Jeffersonian objective of rudimentary education for all. What might have happened if Jefferson's dream of universal education had been given a chance to operate even for a brief century with only the teaching responsibility of his day and age? But, as you know, the school was catapulted into an unprecedented era of scientific and upsurging social changes.

The depressions of 1873, of 1893, and of 1907 gave warning of the coming crisis in democracy. These depressions dramatized the decline of the Jeffersonian society of independent farmers, craftsmen, and merchants, and the rise of a new society of millions dependent upon machines. Again in 1914 the rumblings of the crisis began to be felt, but that depression was sidestepped by a response to a war demand for goods. War orders stopped the downward curve, and war debts drove the line of production to unprecedented peaks. We became the breadbasket for Europe and plowed up the prairies to meet the demand for wheat.

In 1921 the last warning was given; it was a brief drop into the despair of depression before the reconstruction demands and new plant expansion for peace-time production, together with other factors, carried us to the prosperity peak of 1928. But with all these danger signs, our educational system was not adequately geared to the need of preparing citizens for a vastly changed social and economic order.

#### Characteristics of Our Educational System Indicating a Lag

For some reason (and it is not hard to understand it when we realize how brief a span of time it really was between 1828 and 1928) the educational system had not adequately prepared people for the task of making the complex social machine run. The schools had taught reading, writing, and arithmetic; ancient, medieval, and modern history; geography, science, and languages; art, music, and gymnastics; hygiene, shop work and domestic arts; advertising, salesmanship, and accounting; even philosophy, psychology, and sociology. But the people hadn't learned enough about what makes the wheels go around or what stops them in a technological civilization; nor had they learned to work in democratic groups to plan their own future and to control the conditions of their lives. These matters were only lightly touched in civics courses that dealt largely with the structure rather than with the functions and purposes of government, and in sociology, which unfortunately too frequently dodged important implications and major issues.

I speak on this point with a deep conviction born of personal experiences which were all too common to those who have gone to school in my own lifetime. How clearly and regretfully I recall the dreary hours I spent in high school getting ready for nothing but examinations by stuffing my memory with the meaningless details of ancient history and the tricks of quadratic equations. The country had recently suffered a depression and was drifting into another one. But apparently it was more important then to learn why Hannibal went over the peaks of the Alps than

to try to understand why my own country had gone into the depths of an economic depression or to be helped to see how the disastrous results of a possible future depression, which would certainly affect the lives of all those in my generation, might be ameliorated.

#### Unbalanced Production of Scientists

The schools, however, were remarkably successful, one might say disastrously successful, in training scientists, engineers, and specialists in technical processes. This one-sided success of education put us in a predicament something like a man may experience who gets one leg too far in advance of the other. The body politic lost its balance and control because, to a considerable extent at least, the technological foot got too far ahead of the other supporting member—social understanding. . . .

Certain things are beginning to appear clear to us as we study and discuss, argue and read about these problems. For one thing we are beginning to see that the farmers will not win much by escaping bankruptcy at the expense and ultimate bankruptcy of the urban consumers. And the proposition is as true going the other way. For another thing, we begin to be leery of the idea that one section of the country can get rich and stay that way at the expense of another section. We are becoming increasingly conscious of the importance of balanced improvement—town and country, East, West, North, and South. . . .

In these United States we face the problem of organizing our economic life so that all of the people are productively employed all the time. Here we are confronted with the complex issue of making good use of our land, of conserving both human and natural resources, and of saving the farm enterprise from being choked with surpluses. Right here is a challenge to our traditional principles of tolerance and equality. Race prejudice and religious bigotry are in our midst and call for relentless resistance thru the use of all enlightening processes. City slums and rural substandard housing, child labor, inequality of educational opportunities, mob violence and lynching—these and many other evils threaten democracy here in America. The solid and constant attack on these human problems is the very essence of national defense and the best assurance of dependable national unity. . . .

#### Education Our Best National Defense

This is no time to abandon our positions in the vanguard of the struggle for balanced prosperity, for equal and a high quality of education, for tolerance and freedom. I am deeply interested in education because I regard it as the prerequisite for a successful democracy. If it is democracy we are trying to preserve, we cannot exchange schools for armaments, nor lay off teachers in order to hire soldiers. We must find the way to keep both the teachers and the soldiers at their posts. Military defense must be paid for thru sacrifice, but not thru the sacrifice of the very thing we seek to defend.

This, in my opinion, is the time to redouble our efforts to make our educational system operate more effectively than ever in the process of enlightening our judgments.

To be specific, we need to buttress our library system, particularly in the rural areas. When people are *burning* books in other parts of the world, we ought to be *distributing* them with greater vigor; for books are among our best allies in the fight to make democracy work.

In my judgment, we ought to be investing thru both public and private agencies substantial amounts in the widespread extension of public forums, discussion groups, and institutes. I am happy to report to you that great gains have been made in the pro-democratic field of public education, and you may sense something of the growth of organized free discussion by listening to your radios and noting the announcements of forums in your newspapers. This is no time to retreat on this front of free public discussion. It is the deliberation of the people in an atmosphere of freedom on problems concerning their welfare which is the *heart* of the democratic process. Preparedness in the skill of public discussion and debate is an essential kind of readiness for the defense of democracy. . . .

#### Harnessing Potential Educative Agencies

In the last fifty years the remarkable changes in our ways of life have been paralleled by unique inventions for the spread of knowledge and ideas. The motion pictures and the radio are the scientific means of rapidly advancing popular understanding of the scientific era. These instruments have been used thus far largely in the service of amusement and advertising. We have yet to harness their potentialities fully in the interest of public enlightenment. The average film library is poorly stocked with films that are really educational. Most of the so-called educational films are far below our ability to produce in excellence and quality, and a large proportion of them deal with scientific processes for classes in the natural sciences. We have as yet few films on the social and economic subjects in which we are most in need of understanding. Here is another frontier for democracy to conquer. This powerful instrument should be dedicated in part to the strengthening of the fabric of American democracy thru the diffusion of knowledge on its crucial problems such as health, occupational adjustment, improved home and family living, conservation of natural resources, and the principles and practices of democracy. As you know, a start has been made in this direction in the Federal Government. But the great future for the production and distribution of films of high quality for educational purposes is still to be developed.

Likewise, the radio has many undeveloped possibilities. We have been testing out the radio medium for educational purposes during the past four years. "Let Freedom Ring," the story of our Bill of Rights, "Americans All—Immigrants All," the story of the people who made America, "Brave New World," the story of our Latin-American neighbors, "Democracy in Action," the story of representative government in a changing world—these and many other programs presented by the United States Office of Education have won national recognition. But they have merely indicated some of the educational possibilities in broadcasting. . . .

(Continued on page 198)

## A Co-operative Program of Work for High-School Departments of Agriculture and Homemaking

G. S. DOWELL, Teacher, Quail, Texas

THE need for a co-operative program of vocational agriculture and vocational home economics runs like a thread thru the warp and woof of the new philosophy of vocational education; the philosophy that has been developed during the 20 years that these courses have been in existence. In the early years of vocational education the first year in agriculture was devoted to livestock and poultry or animal husbandry, the second to field crops or agronomy, and the third to farm management. The emphasis was placed on greater production, more profit, and financial income. Thus the farmer's primary interest was his crops, his livestock, or his land. He bothered himself little about such things as lawns, trees, shrubbery, gardens, orchards; or with providing shelves, closets, kitchen cabinets, piping water into the house, and other things for the comfort of the family. His time belonged in the fields rather than to the family to be spent at home, on outings, at church, or even in town on Saturday afternoons.

In home economics the course, at first, consisted of cooking and sewing, then domestic science and domestic art, later foods and clothing, and finally homemaking. Then it was that a co-operative program appeared on the horizon of the vocational curriculum, and became necessary because with teachers of vocational agriculture preparing better providers, and teachers of home economics graduating better cooks, seamstresses, and housekeepers, they were contributing to the ability to make a living but very little towards living a life or making better homes. Servants and other hired laborers may be good housekeepers and good farmers but they are not necessarily good homemakers.

Ideas in regard to homemaking and richer family life came and went, for 20 years, like golden shuttles in the loom of time until a new pattern for vocational education was produced. With the co-operative program the teachers of vocational agriculture and home economics have come to realize that they have one and the same job—that of training people for homemaking—and that it takes men as well as women to make homes. Many farmers and many farm women have been good providers and good cooks, yet made a failure of family life and the rearing of children—training future farmers and future homemakers.

Accepting the goal of "teaching people to do better the things that they will do anyway" as one of the cardinal principles of education, rural consolidated



G. S. Dowell

schools must teach their students to make better homes. The entire farm and home are incorporated in the co-operative program of today. This is the basis for the adult evening school and the part-time school in connection with the all-day high-school classes. In such schools the vocational departments are taking the lead in preparing people for life, and they must plan together in order to provide a complete program of work.

### Learning to "Live at Home"

Recognizing that the physical needs of the family must be provided and that each member of the family should have a part in this, or learn to do by doing, a "Live at Home" program has been made one of the central themes of the co-operative program now in operation in many schools. Realizing that the physical conditions of the home must be improved in most cases before homemaking can get off to a good start, "Home Improvement" has been incorporated as another theme in the program. Knowing further that "Sharing Family and Community Life" is the final goal of homemaking and community building in any country, it has been included as the third central theme of the program.

In teaching the unit on management problems of the home, the father, mother, and children confer with the vocational teachers and make a family budget for the year. If all members understand the budget they are more nearly satisfied to be denied certain privileges or money when they understand that it is not in the budget and there is no place to secure it, than they would be if they were to go to Dad for money and he were to tell them he does not have it. If a mule or a horse dies and has to be replaced, Mother may be better satisfied to do without the new rug that she wanted if she has helped to make the budget and knows how the money has been spent. Or Daughter may be better satisfied to give up the trip she wanted to take if she realizes that part of the cotton crop has been destroyed by wind or hail and it took the extra money that she might have spent to buy more seed to produce a crop to provide money for the budget next year.

### Working Together to Beautify the Home

In the unit on exterior home improvements or home beautification the family is likely to enjoy the trees, the lawn, the flowers, and the private area more if each helps to plan them and contributes something in the way of ideas, labor, and sacrifice in order to secure them. They have prepared themselves to enjoy all of these improvements. American home life has ceased to be the realm of the patriarch and the dictator which our forefathers knew and has become a democratic institution. It can be a suc-

cess only to the extent that the democratic spirit prevails. Money or financial support alone does not make happy homes and contented classes. When we live at home and share family and community life we tend to do better the things that we will do anyway, and education only functions in a vocational way when it trains people to do these things better.

In these modern times education is not only a question of teaching people what they need to know but helping them to like it. A co-operative program is more attractive to students than the old plan of complete separation. What high-school boy would not welcome the opportunity to change the routine of agricultural work with some units such as personal grooming, which means so much to him now that the girls notice the difference in his make-up, every-day manners of which he knows so little, personality development that will help him with the problems that have become real to him, especially when taught by a different teacher? What high-school girl does not want a chance to learn to cut the ham that she whittles on when she cooks a meal, or to plan her yard improvement and make her flowers grow better, or to make minor repairs of home equipment in the farm shop? The change alone is invigorating. It adds variety and spice to the high-school courses. Only those who have experienced it can realize the eagerness with which both boys and girls of high-school age discuss the uses of leisure time, boy and girl relationships, and laws affecting family life, when taught by a master teacher and stripped of all their giddiness and mystery.

### What Out-of-School Youth Want

One of America's greatest problems is its out-of-school youth who are being reached by part-time classes. The same subjects suggested above for exchanged classes and combined classes have an even greater appeal to boys and girls just a little more mature than those in the high school, and when we add to those such subjects as securing land on which to farm, financing a farming program, budgeting, and selecting housekeeping furniture, we make a powerful appeal to young men and young women who already are planning and scheming to make a start. Guidance is given in planning just what, where, and how they will buy their housekeeping outfit; or where there is a farm that they might rent and what they would have to make the first crop on; what each could contribute; and how to get the production credit loan association or some other agency to aid in setting up a financial plan.

After the crops are harvested and the winter months come there is not so much work nor so many duties on the farm. Then, both farm men and women will welcome a series of meetings for the purpose of self improvement and when things are planned that are of interest to both, they enjoy going together. When a group plans a slaughter demonstration in the community for the afternoon, a feed of back-bone, ribs, liver, etc., for the evening, a meat cutting demonstration at an evening school the next night, and a canning demonstration the following day, they come in droves.

Since the American high school is the people's university where people are to receive both the fundamentals of education and special training for their life work, and since the children in rural consolidated schools are more likely to spend a part and possibly all their lives on the farm, such schools should prepare their students for farm life. Home-making being a job for both men and women, the departments of vocational agriculture and vocational home economics should establish a co-operative program for that purpose.

## Functionalized Agriculture in an Urban High School

HOWARD L. RENNICK, Teacher,  
Edison High School, Fresno, California

THE school is Edison High School, located in the heart of the San Joaquin Valley in Fresno, California. The students are cosmopolitan—composed of seven or eight different nationalities. A large number of the boys in the agriculture class live in the city of Fresno but work or have worked on ranches during the summer months. Few live on ranches, since most of the district lies in the city of Fresno.

The discussion which follows gives a description of what has been accomplished the first year in a course in non-vocational agriculture with limited funds and resources. Some of the units of the course include poultry production, dairying, care of other farm animals, cultivation and plant life, elements of electricity, chemistry as applied to agriculture, marketing, farm accounting, landscaping and the artistic side of farm life, legislative trends in agriculture, farm organization, and farm co-operatives.



"The course has included the planting and cultivation of vegetable gardens"

In an effort to provide practical experience and training along with theoretical education, the following curriculum was worked out to supplement text-book work. Activities which supplemented text-book work were divided into two divisions: (1) home projects patterned after the 4-H Club type and (2) school plots and laboratory activities.

Twenty of the 26 boys studying agriculture started home projects. Two of the boys engaged in poultry projects, two in pigeon projects, and 16 in vegetable garden projects. Thirteen of these boys finished the work mapped out for their projects in time to receive special recognition by the close of school. They had 4-H Club materials for the carry-

## Officers of State Associations of Teachers of Vocational Agriculture

The following list of officers of state associations of teachers of vocational agriculture was compiled by Darrell M. Young, Nevada, Missouri. Mr. Young is president of the Missouri Vocational Agriculture Teachers Association.

STATE*	PRESIDENT	SECRETARY
Alabama.....	D. N. Bottoms, Auburn.....	Melton Thornton, Lexington
Arizona.....	Joseph Reed, Mesa.....	N. C. Larkin, N. Phoenix
Arkansas.....	R. C. Rankin, Walnut Ridge.....	Doyle Kelso, Searcy
California.....	L. J. Banks, Modesto.....	C. L. Eggleston, Willits
Colorado.....	Ralph Wilson, Olathe.....	L. P. Bunch, Ft. Collins
Connecticut.....	F. W. Wooding, Minden.....	M. J. Risci, Thompsonville
Delaware.....	J. F. Gordy.....	George K. Vapaa
Florida.....	B. K. Wheeler, Hawthorne.....	V. W. Driggers, Apopka
Idaho.....	T. E. Maberly, Rupert.....	John A. Bauer, Boise
Illinois.....	M. R. Maberly, Rantoul.....	M. R. Stengel, Lanark
Indiana.....	Bruce F. Hardy, Lexington.....	E. B. Taylor, Lafayette
Iowa.....	M. M. Dockendorff, Pella.....	R. E. Rulison, Ogden
Kansas.....	E. L. Raines, Olathe.....	Harold Kugler, Manhattan
Kentucky.....	Earl Wood Walton, Georgetown.....	Tullus Chambers, Benton
Louisiana.....	David Calhoun, Kisatchie.....	G. A. Luno, Plain Dealing
Maine.....	Chas. Wood, Houlton.....	Darius Joy, Addison
Maryland.....	E. K. Rameburg, Denton.....	R. K. Rameburg, Thurmount
Massachusetts.....	N. V. M. Smith, Northampton.....	J. B. Farrar, Segreganset
Michigan.....	Lynn Heatley, Midland.....	E. E. Gallup, Lansing
Minnesota.....	Ira Montgomery, Faribault.....	Richard Aakre, Duluth
Mississippi.....	R. L. Barrett, Minter City.....	R. H. Fiasckerly, Jackson
Missouri.....	D. M. Young, Nevada.....	L. C. Thornton, Norborne
Montana.....	Wm. Vance, Bozeman.....	Joe Welker, Lewistown
Nebraska.....	R. A. Drishaus, Holdrege.....	R. W. Canada, Crete
Nevada.....	LaDell Larson, Elko.....	W. C. Higgins, Reno
New Hampshire.....	Paul Traver, Orford.....	J. A. Osgood, Wake
New Jersey.....	Phillip Alampi, Woodstown.....	Richard Lippincott, Manasquan
New York.....	Roy Gibbs, Gouverneur.....	Earnest Noble, Wolcott
North Carolina.....	R. S. Dunham, Cary.....	R. B. Winchester, Mt. Gilead
North Dakota.....	M. A. Ellingson, Langdon.....	Roy L. Solberg, Rolla
Ohio.....	J. H. Leonard, Van Wert.....	R. E. Burdick, Fremont
Oklahoma.....	A. W. Castle, Broken Arrow.....	Dr. D. C. McIntosh, Stillwater
Oregon.....	Lumer Bond, Oregon City.....	Leonard Hudson, Silverton
Pennsylvania.....	T. W. Crittenden, Wellsboro.....	M. J. VanSeoten, Athens
Puerto Rico.....	Jesus M. Rodas.....	S. P. Estronza
Rhode Island.....	Ian M. Walker, Bristol.....	A. M. Hersey, Lockwood
South Carolina.....	W. C. James, Sumter.....	P. G. Chastain, Blaney
South Dakota.....	W. R. Bryant, Canton.....	Lloyd Haisch, Milbank
Tennessee.....	T. H. Williams, Henderson.....	T. G. Hinton, Southside
Texas.....	R. A. Rix, Commerce.....	J. L. Sowell, College Station
Utah.....	W. E. Atwood, Roosevelt.....	L. K. Schlappi, Vernal
Vermont.....	Maurice Morrill.....	Roland H. Whiting
Washington.....	R. Patrick, Fairfield.....	Ralph Olmstead, Sedro-Woolley
West Virginia.....	S. J. Weese, Blacksville.....	C. J. Cunningham, Hedgesville
Wisconsin.....	J. F. Wilkinson, Oshkosh.....	W. D. Freitag, Columbus
Wyoming.....	Jack Ruch, Douglas.....	Elgin Hall, Worland

\*States omitted from this list either do not have a state organization or had not been heard from by Mr. Young at the time of publication.

## Prospective Teachers Study Canning



Learning to can fruits, vegetables, and meats in both glass and tin and making jellies and preserves are part of the practical training for prospective county farm agents and instructors in vocational agriculture at School of Agriculture, Hampton Institute, Virginia

ing out of their projects and kept a record of their activities, including time, method, cost, and income. Here they have had an opportunity to verify and apply the knowledge obtained thru the classroom, various reference books, and government bulletins. Such projects have not only developed the student's power to see things understandingly thru observation and doing, but have also increased his sense of personal responsibility and widened his understanding of nature.

In choosing the exercises and projects to be included in the school plots, the

instructor sought to select projects which were related definitely to the San Joaquin Valley, such as the propagation and culture of fruit trees and vineyards. This included such individual work as cleft grafting onto Alicantines and Prune de Cazouls grape cuttings obtained from the Fresno U. S. D. A. grape experimental station. Each student set out a vineyard consisting of a transplanted mature vine, six bench-grafted cuttings, and six regular cuttings. Each transplanted a fruit tree and pruned it; propagated bulbs, roses, and similar

(Continued on page 189)

A. M. FIELD

# Methods

## Using Problems in Developing Thinking Ability

J. L. PERRIN, Supervisor,  
Jefferson City, Missouri

MUCH has been said recently about teaching students how to think. Is the development of the ability in students to think intelligently one of the primary functions of the school? How important is it to be able to think intelligently? The answer is given by Boraas in *Teaching to Think*:



J. L. Perrin

"He who is unable to think independently and who lacks initiative and creativeness, can not overcome the forces and conditions which tend to enslave him and can never achieve anything more than mediocrity. Leadership requires the attainment of personal freedom and the ability to think and act, not only differently than others but also better."

Dr. Boraas goes further in making this statement:

"The success of an individual in any vocation is clearly dependent on his ability to exercise critical judgment; that is, to select the 'better' and to discard that which is merely 'good' and to be ready and willing to abandon the 'better' as soon as he discovers the 'best.'"

Granting that the ability to think is highly desirable, can this ability be developed? It is maintained by some that the ability to think is hereditary and cannot be changed by training any more than one's height. However, Lancelot in *Handbook of Teaching Skills* says:

"A legitimate inference seems to be that the development of thinking ability is largely or mainly a matter of training our young people to observe habitually the standards of good thinking, rather than one of altering in any way their inherited mental capacities or traits."

Then, if the ability to think can be developed, how shall we as teachers proceed? Shall we have our students memorize the rules of good thinking or shall we agree with Boraas who says: "He (the teacher) regards the ability to select with discrimination and to choose wisely as the highest aim of scholarship and he does not esteem very highly the ability to recall and repeat on request a miscellaneous collection of propositions without the exercise of any judgment as to their relative importance."

One of the most commonly used methods for securing thinking on the part of students is the problem-solving procedure. This method of teaching involves making decisions by the students. The

characteristics which we like to see in a good problem are:

- (1) The problem should grow out of the experiences of the students.
- (2) It should be interesting itself or clearly connected with other things which are interesting.
- (3) It must be clear and definite in statement.
- (4) It should be of proper scope and difficulty.
- (5) It should call for thinking of superior quality.

These five characteristics should be used as a score card in evaluating problems until the teacher becomes thoroughly familiar with the problem procedure in teaching.

### An Illustration

Here is an example of a problem and the procedure followed in its solution. The problem is stated as follows: Bill has a Duroc-Jersey sow with 10 pigs farrowed two days ago. He plans to grow them out and fatten them for market purposes. How shall Bill feed and care for his growing pigs until weaning time?

The teaching procedure: The teacher asks the class what factors are to be considered in helping Bill to make a decision. The members of the class suggest the following factors for consideration:

- (1) Age to begin feeding pigs grain and concentrates
- (2) Effect of sanitary practices on growth of pigs
- (3) Available feed on the home farm
- (4) Suitable protein supplements
- (5) Kind of pasture available
- (6) Use of mineral mixtures
- (7) Age to castrate boar pigs
- (8) Age to vaccinate pigs
- (9) Methods of feeding: creep-feeding, self-feeding, hand-feeding
- (10) Use of slop feeds
- (11) Age to wean pigs

The students will consult references to find the facts about each factor suggested. They will consult experiment station bulletins, reference books, project-record books, market prices on feeds, and any other available sources of information concerning the various factors affecting the solution of the problem. During the discussion, experiences of the boys and farmers in the community will be considered.

The following conclusions are reached in the solution of Bill's problem:

- (1) Pigs will begin eating grain at about 10 days of age.
- (2) Following the McLean County system of swine sanitation will prevent most pig diseases and avoid parasites which would make pigs unhealthy and increase the amount

of feed that would be required to make 100 pounds of gain.

- (3) Corn and skim milk are available on the home farm for feed.
- (4) Tankage is the most economical protein supplement.
- (5) Alfalfa pasture is available.
- (6) A mineral mixture of equal parts of finely ground limestone, bone-meal, and salt is best.
- (7) The best age at which to castrate pigs is four weeks.
- (8) The best age at which to vaccinate pigs is at six weeks.
- (9) Creep-feeding pigs with a self-feeder is the most economical method of feeding.
- (10) Bill will not "slop" his pigs, even tho faster gains may be obtained, because of the additional labor involved.
- (11) The pigs will be weaned at eight weeks of age.

Bill and the other members of the class will need to recall and evaluate the facts gained from reading references and the exchange of experiences in order to make decisions.

### When Students Disagree on the Answer

It is to be expected that, with an average class of 20 to 25 farm boys, not all of them will reach the same conclusions from their study of references and evaluation of facts. What are the causes of these differences in decisions? Should we be alarmed at such differences of opinion and decide perhaps that the problem method of instruction is ineffective? One of the common causes of wrong decisions is the lack of knowledge. Boys will make decisions in light of their experiences. If a boy has not the experience which will enable him to make the correct decision, then he should be taught to consult other authorities. He should learn to evaluate sources of data.

For example, data from a state experiment station bulletin are more reliable than the opinion of one farmer. Sometimes boys fail to use what information is known because they do not readily see the connection with the problem being considered. The wrong evaluation of factors leads to wrong decisions. A boy may decide that cottonseed meal is a desirable protein supplement for hogs because it is cheaper than tankage.

Boys of high-school age are usually more open-minded than adults. Nevertheless, boys are sometimes influenced by prejudices or refusal to recognize facts. For example, a boy may say, "My Dad never feeds any minerals to his pigs. He just uses wood ashes and salt." This boy should be led to discover additional facts about the use of minerals in feeding hogs. New terms which are not understood by all members of the class are likely to cause wrong decisions. For example, various members of the class may have entirely different concepts of the term "protein supplement." A skillful teacher and his students can discover many other causes of wrong decisions.

Students should be led to determine for themselves causes of wrong decisions and give illustrations from their class. After learning the causes, they will attempt to avoid them. This is only another step in developing critical thinking. Students should be brought to realize that some decisions are not final. Changing conditions may cause a different decision in the future. For example: tankage may be the most economical protein supplement to feed hogs at the present time. At some time in the future meat scrap may more economically be used due to a change in prices.

The problem-solving procedure in teaching is only one of several methods or techniques which may be used in teaching students how to think. Teachers should constantly be on the alert to discover and use additional skills and techniques for the development of the ability to think in their students.

In order to emphasize the importance of this matter of the ability to think, I

will close with a quotation from Lancelot.<sup>2</sup>

"Not only is civilized man a more thoughtful creature than his prehistoric forebears, but it may even be truthfully said that in nearly every walk of life, those individuals are most efficient and successful who are the best thinkers. In general, those push ahead and are most successful in the end who are able to think better than their fellows."

"We are now coming to see that when he (man) has really learned to think well, the whole hateful brood of evils that now beset him may be expected to pass out of his life forever. As his gradually developing ability to think has brought him far on his upward way, so it will doubtless bring him at last to the goals which now seem to him remote and all but unattainable."

1. From Boraas, Julius, *Teaching To Think*, pp. 98, 201, 151. By permission of the Macmillan Company, publishers.
2. Reprinted by permission from *Handbook in Teaching Skills*, by Lancelot, pp. 103, 87, 88. Published by John Wiley & Sons, Inc.

## Organization of Subject Matter

CARSIE HAMMONDS,

Teacher Education, Lexington, Kentucky

FOR many years Dr. W. H. Lancelot of Iowa has stressed the desirability of proper organization of what we would teach in vocational courses—stressed the danger of fragmentary, disorganized knowledge. Educational psychologists today stress organization as an important factor in learning. Dr. C. H. Judd in his *Educational Psychology*, recently from the press, emphasizes organization as a fundamental concept in psychology. The need for organization in agricultural subject matter is strongly implied in his chapter on Vocational Education and General Education, which every teacher of vocational agriculture should read.

In nearly all human learning, relationships must be seen by the learner. To organize is to place things in their proper relationship. The learner cannot organize without seeing relationships. In vocational agriculture it is not enough that the learner see the relationship of a bit of knowledge to a life problem. It is very important that this relationship be seen. But it is not enough that knowledge be brought into relationship with one's purpose; it must be brought into relationship with other knowledge. This is necessary for adequate and effective organization; knowledge must be related to knowledge.

This fact may be illustrated in any example of reflective thinking. One cannot think effectively if he sees only the relationship of the factors to what he is seeking; he must see the relationship of the factors to each other. Any reasonably complicated thinking involves the use of previously organized knowledge and involves present organization of knowledge. Not to see the necessity for organization in teaching vocational agriculture is not to make vocational agriculture an intellectual subject—is not to make it functionally vocational in the largest sense.

There is a possibility that too much of what passes for vocational agriculture is fragmentary and disorganized, that

knowledge is not related to knowledge, that the students may not secure understanding, that the work may not be carried along intellectually. Many developments in vocational agriculture, in themselves good, may have contributed to disorganization of subject matter. At least many of the developments carry with them this possibility. Let us not deny that the danger of lack of organization exists.

### Movements Which May Result in Disorganization

Before we mention some of the developments, may we state that good organization of subject matter in vocational agriculture is as necessary as is good organization in any other subject, traditional or new. Furthermore, good organization in vocational agriculture is entirely possible. Knowledge can and should be related to knowledge; vocational agriculture can and should be intellectual.

Now to name some of the movements that carry or may have carried with them dangers of fragmentary and disorganized knowledge. May we emphasize that this weakness is not inherent in any of these movements. Take seasonal sequence. Some teachers swallowed the idea of seasonal sequence "hook, line, and sinker." One thing was dealt with one day in the class, the next day an unrelated thing was considered, and the third day some other thing was studied which was not related to the things dealt with on either of the first two days, and so on. This was seasonal sequence at its worst. Today, if we are wise, we make use of seasonal sequence, but we usually take care to pull together enough related material that we are able to secure the necessary organization for effective learning. We deal with related subject matter for an extended period of time, rather than chop the course into fragments. Any organization of a course is unsound if the course consists of small units only, if each day's work is self-contained. It is unsound because it does not make for good learning.

Good organization of subject matter is not assured by working out the course on a cross-section basis nor on some oth-

er basis. It is just possible that an unguided teacher may have poorer organization of subject matter with the cross-section basis than with farm crops one year, farm animals another year, and so on. But there may be good organization on either basis. Good organization is entirely possible with a year of farm crops and a year of farm animals. We must not conclude, however, that every teacher's year of farm crops is well organized. The cross-section basis of course-building has the organization advantage of forcing the teacher not to use the textbook arrangement. The conventional organization of the textbook cannot be called well-organized knowledge.

Not everyone who says he uses a problem-solving procedure in teaching has good organization of subject matter. He may not have relatively large, inclusive objectives. If he does not have such objectives, he will not have good series of problems; the problem today may not be related to the problem of yesterday nor to the problem of tomorrow. Of course, he may have the proper large objectives and still not have good series of problems. The teacher whose "course" consists of isolated problems as brought up by members of the class from day to day does not have a course. Good organization of subject matter involves foresight and planning. It is not an improvisation.

Currently, there is considerable emphasis on individual instruction. Individual instruction has an important place in vocational agriculture. It is not the purpose of this article to evaluate any form of instruction or course-building. This article is concerned with organization of subject matter. The teacher who does all or even a large part of his teaching thru individual problems must be skillful indeed if he secures good organization of subject matter. The average individual boy, acting as an individual, is inclined to deal quite narrowly with his "felt needs"; he does not ramify as he works; he does not push into the whys; he does not look for relationships; he does not seek understanding; he does not do a good job of organizing.

## Agriculture in an Urban High School

(Continued from page 187)

ornamental plants; and, in addition, set out cuttings of willows, sycamores and an ornamental hedge.

The course has included the planting and cultivation of vegetable gardens. These gardens included sweet corn, beets, and radishes. The class established a number of test plots for different kinds of fertilizers. Samples of these fertilizers were donated by the different local seedhouses. In so far as possible, all work was carried out individually by the pupil.

The course has been beneficial in teaching co-operation, and has brought out a certain amount of originality, thereby helping to establish pupil resourcefulness. It has developed self-reliance in the making and execution of plans. Regardless of the vocation entered later by the student, it is believed that certain basic training has been obtained which will be of lasting value.

# J. B. McCLELLAND Farmer Classes O. C. ADERHOLD

## Building a Farming Program and Rural Culture With Out-of-School Farm Boys

OTTO W. PINO, Teacher,  
Zeeland, Michigan

**MARCH 20.** "Sat in with Nelson C. and his father and mother to work out a partnership agreement and farm plans for the year."

**April 24.** "Assisted Jim S. in applying sulphate of ammonia on his wheat as an experiment."

**June 1.** "Harvested some alfalfa on Dick R's farm and found that the part of the field where the alfalfa had been cut in September last year yielded only half as much as that part where it was not cut at that time."

**THESE** quotations were taken from the writer's diary after his first winter of part-time classes in which 30 young men were enrolled. The organization of these part-time classes was one result of the community survey of the Zeeland, Michigan, trade area, which assisted the school board in deciding to adopt a plan by which the teacher of agriculture devotes half his time to adult and part-time groups.

### How Needs Were Studied

In conformity with the general community survey, the individual survey cards indicated major interests in dairying, poultry raising, and soil problems. Therefore, the course was built around a study of soils as a foundation for crops that would most economically support the dairy and poultry enterprises.

Each member of the group made a map of his home farm. This experience, in itself, resulted in much new information and interest in the home. Each young man bought a small "Soiltex" outfit with which to test soils for acidity. The reaction was recorded on the map for future reference.

A study was made of farm budgeting and each boy decided whether any adjustment was needed in the kind and amount of crops being raised on his home farm. Lack of information in dairy and poultry production and even in yield of crops aroused in class members a desire to know more thru actual records. A study of dairy feeding was made, and each boy went thru the process of weighing milk and adjusting feed to production. Many boys modified their home practices in feeding.

Early in the course, as an orientation procedure, a brief summary was made of the "Michigan Farm Success Factors"

as compiled by the farm management department of Michigan State College. The suggestion was made that before going into farming or any other occupation one should know what the business earned. This stimulated an interest in farm accounting and time was devoted to instructing the boys properly in entering records of inventory and cash transactions.

### Comprehensive Farming Programs Built

Instruction was also given in the different types of projects. Lists of possible projects were developed and discussed and choices were finally made in many different enterprises. The boys decided to try to make some money thru production projects in order to build a reserve for future farming. Dairy cows and heifers, pigs, poultry, sheep, potatoes, corn, and partnerships with Dad were among these projects. Cow testing, farm accounting, pasture improvement, sweet clover, soybeans, and alfalfa were the major improvement projects, while soil testing was the chief supplementary project.



Otto Pino



Part-time student and dairy calf

Visits are made to these boys about once each month, checking farm account records, returning milk bottles, testing soil, and offering many other services. It may be helpful to note that in our cow-testing arrangement, once each month the boys weigh the milk night and morning, and deliver the samples to the school where the regular tester does the testing for five cents per cow sample. The teacher returns the report and the bottles to each farm. This keeps up a continual monthly visitation program, bringing the teacher and family into conference over many major and minor farm problems.

### Out On the Farms of Part-Time Students

Consulting the teacher's diary, we are reminded that on April 24 "We had a good time going over the farm with Gerrit B. discussing soils and other farming problems. We took soil samples

to the house and tested them around the kitchen table until seven o'clock." Gerrit and his mother had a new course in soils that day. Quiet doubt was turned into confidence and old practices were replaced with better ones. In the place of the "farming-is-no-good" attitude comes desire to progress.

April 28 the diary records—"Went over to John L's to study the hog market with him. Not much prospect of better prices. Fourteen hogs should go to market. John is getting over appendicitis."

Another date early in April—"Have been out to Ed D's today and Mrs. D. called out, 'Can't you come in the house? We don't always have to entertain you in the barn. We are not much for going to banquets but I am speaking now for our tickets next year.'" The parents had been to the recent All-Agricultural Banquet closing the winter classes. Ed is passing now from laborer without pay to partner next year. Farm accounting and cow testing will be the basis for their contract."



A part-time student starts an improvement project with the home farm dairy herd

April 15, according to the diary, "William S. went to M. S. C. to take an N.Y.A. short course in agriculture, being recommended because of his part-time record." August 7: "Bill reported for duty as herdsman at the Star Commonwealth Farm in southern Michigan."

May 16 the record reads, "Nelson C. and father are carrying out their partnership to their mutual satisfaction. Nelson wishes they had a better house, but their new rotation plan with more alfalfa and corn, sweet clover and soybeans, together with the high-rating dairy herd, makes him optimistic." Two others are talking partnership for next year.

The last story to come from the diary is about a former F. F. A. member on whom the teacher has been calling during the five years since his high-school graduation. Sept 22. "Called on Chris A. today. Went down a long hill drive to the wheat field and met Chris with beaming face and his first remark was, 'We've done it! 'Done what?' 'In partnership with Dad.'" The dairy goes on, "In the shade of a large maple tree in the corner of the wheat field we talked over some ideals of farming, his father's long association with these hills, the washouts, the trees, the fence posts, the buildings, and his plans for retiring. That his, Chris's children, would re-

member working around the hills instead of up and down and that they would still love the associations with the eternal features of the farm that was playground, bread and butter, and home; that he, like his father, would retire some 40 years hence with sons as partners. The years would be reminiscent of community life, district and township responsibilities, and church trusteeship as well as dependable, cherished counsel to less prepared neighbors."

And Chris was thoughtful and smiled and the teacher of agriculture walked back up the long hill lane, looking over the three new purebred heifers purchased since Chris became partner. Chris continued putting in wheat. So are faith and vision so intrinsically part of rural culture if we look for them under the apparent rush for economic survival.

An educated man is not one whose memory is trained to carry a few dates in history. He is one who can accomplish things. A man who cannot think is not an educated man however many college degrees he may have acquired. Thinking is the hardest thing one can do—which is probably the reason we have so few thinkers.—Henry Ford.

## Finding Opportunities in Farming\*

Dr. F. W. LATHROP,  
Specialist in Agricultural Education  
(Research) U. S. Office of Education

I CONFESS that I was a teacher of agriculture for five years and did not suspect that I had a responsibility for assisting young men to become established in farming. To my credit, let it be stated that it takes a high order of imagination to prepare young men for farming when one does not know in what kind of farming activities they will engage.

I was almost in a class with the patient in an insane asylum, who used to point to a blank canvas on an easel as his masterpiece, which he designated as "The Israelites Crossing the Red Sea." When asked to show where the waves were, he said, "They are still rolled back." When asked about the Israelites and the Egyptians he said, "The Israelites just came by a few minutes ago and the pursuing Egyptians have not come in sight."

My imagination was only slightly less. As a teacher of agriculture I was

preparing young men for *imaginary* opportunities. I will not make any accusations against present-day teachers of agriculture because I live in a glass house. Perhaps there are teachers today who prepare young men for *real* farming opportunities.

To help young men become established in farming, the teacher of agriculture must *know* the farming opportunities in the home communities of the young men. It is not enough for the teacher to make mental notes of the opportunities he runs across. A systematic continuous study of farming opportunities is essential.

There are five kinds of opportunities which should be included:

1. Opportunities to work for wages and experience on outstanding farms
2. Opportunities to rent farms
3. Opportunities to buy farms
4. Opportunities for partnerships
5. Opportunities to become satisfactorily established on the home farm

In my opinion, there are three good arguments for a continuous study of these five kinds of farming opportunities by a teacher of agriculture:

In the first place, such a study is the basis of any adequate attempt to assist young men to become established in farming. The teacher should assist present and former all-day, part-time and evening-school students. It is conceivable that even evening-school students might desire assistance in renting or buying a farm in the community.

The second argument is that the teacher has certain guidance functions; at least he can help his students to decide whether or not they wish to go into farming and can guide them within the farming occupation. Like a harbor pilot, he needs to know channels and destinations. If a teacher is to give definite guidance he must know the farming opportunities in his community.

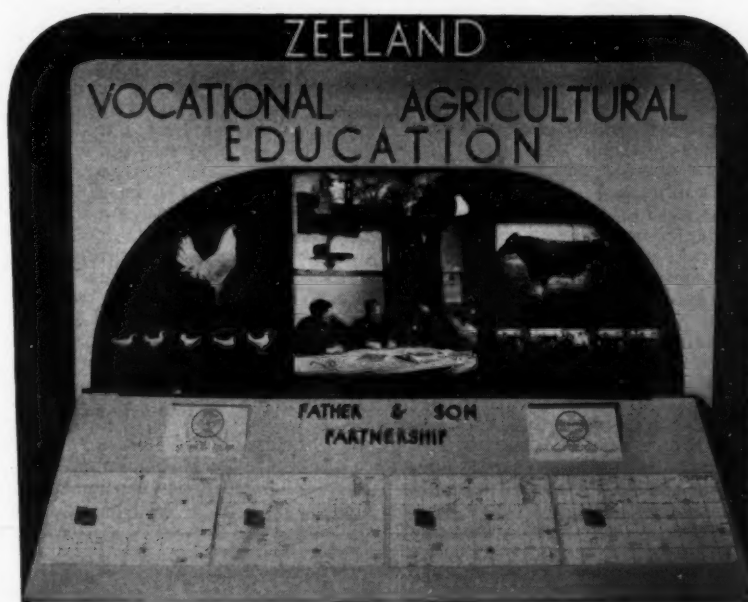
Third, a knowledge of farming opportunities should have a direct and beneficial effect on training content. When young men have embarked upon their careers or have planned the initial stages, an ideal learning situation is possible if they are offered appropriate vocational training. A knowledge of farming opportunities brings this ideal situation within reach of a teacher of agriculture. The courses of study may well be built around these opportunities.

A continuous study of farming opportunities adds a burden to the busy teacher of agriculture. If teachers are to study farming opportunities continuously in their communities, a procedure is needed which requires a minimum expenditure of their time. There are at least two ways of conserving the teacher's time: one, obtaining the active and advisory assistance of a committee of farmers well distributed thru his community; and two, reducing the information to be obtained about opportunities. The teacher should not waste his time gathering information he does not really need.

To repeat, a knowledge of opportunities in farming (1) should be the basis for the teacher's placement activities (2) will make guidance definite rather than general, and (3) should "point up" the curriculum because the student has specific objectives.

\*Portions of an address delivered at the Annual Convention of the American Vocational Association, Grand Rapids, Michigan, December 6, 1939

## An A. V. A. Convention Exhibit



This exhibit was shown at the annual convention of the American Vocational Association held in Grand Rapids, Michigan, December 6-9, 1939. The theme of the exhibit represents that of the agricultural section of the convention as well as the goals of the Zeeland High School department of agriculture, namely to give instruction in the major farm enterprises of the community, which are dairy and poultry, and to assist young farmers to get established in the business of their choice.

The central picture is that of the farm home of George Bolt of Vriesland, with Mr. Bolt and his son Harvey seated at their kitchen table studying a father and son partnership agreement. Otto W. Pino, the teacher of agriculture, is shown between the two working out the problem. Harvey is a part-time student and in January will complete a year of farm accounting and cow testing. These records will be used in the final father and son agreement in establishing the value of personal property. Ten other part-time members in this community have similar records, and some of them will also enter into business with their fathers. The spot maps at the lower part of the exhibit show the places where the class members live and the names of the farm operations they are carrying on. On either side of the theme picture are photographs of outstanding males in use in this area.

During the A. V. A. Convention about 80 teachers of agriculture, teacher-trainers, and state officials visited the Zeeland poultry plants and the artificial breeding unit. The local hatcherymen furnished free transportation to this group.—O. W. P.

# Vocational Education in Agriculture Is Placement\*

R. W. GREGORY,  
U. S. Office of Education

**MAY** I start my statement concerning placement and establishment in farming by reading the following quotation? It is as follows:

"This is the story of a businessman who owns a farm located about 200 miles from his home. Being a much better businessman than farmer, this man has a real problem on his hands. Owner of a good, average-sized farm, he has never been able to get a good tenant to live there and work it profitably. A year or so ago, this man decided to put a young man with four years of vocational education in agriculture on his farm. Here was a fine chance for a young fellow to make a good start in the business of farming, a chance to run the whole show himself—something which presumably he had been trained to do. For at least two years the owner of that farm has tried hard, and failed, to find the boy he is looking for. The fellows who seemed right for the job of working and managing an entire farm by themselves were few; besides, they were usually spoken for on their father's farms. Those who were available didn't seem capable, in spite of their training, of tackling such a big job. The job is still open.

"Maybe this is a problem worth thinking about—maybe not. Anyway, that's the story, for whatever it's worth."

This story appeared in a four-page bulletin that was distributed late in 1936 to the 5,469 men who were then teaching vocational agriculture in the United States. Two years later its sequel appeared, throwing an interesting light on what happened. The sequel reads:

"That businessman about whom we wrote a year or so ago finally had to dispose of his farm. His reason: 'I was not able to secure a satisfactory tenant who could run it profitably.' Remember?"

"The farm was in the cornbelt, 120 acres in size, good buildings and fences, completely equipped and adequately financed, and capable of producing 75 bushels of corn to the acre. The owner isn't a hard man to satisfy and he tried to place some young man on that farm."

To that early appeal there came only one reply.

There is another story going the rounds, which is even more illuminating. It concerns a teacher of vocational agriculture who sold his farm because he couldn't get a satisfactory tenant. Let these two tales suffice to set the stage for this discussion here today.

## Youth's Most Difficult Problem

For my part, I want to make what may appear to you to be some rather arbitrary statements, which give expression to my point of view. While it would be extremely difficult to validate these statements, I do firmly believe there is enough supporting evidence to be found to make each particularly defensible at this time.

For some time I have been declaring that the biggest and most important

problem on the American scene is that of getting young people who have ceased to be full-time students into full-time jobs, that the most difficult problem young men wanting to farm have to face today is that of getting started in farming.

**TO DATE**, vocational education in agriculture has done relatively little about this problem. Most of us have not even been conscious of its growing presence. Teachers have not been on the alert as to its importance or its opportunities or to their pivotal position with respect to it. Our record with regard to it reminds me of a story frequently told about a college that hired a coach, signed up a squad, drilled a team—but never played a single game. In the last analysis, vocational education in agriculture will have to do better than this. It will have achieved in proportion as the boy and young men students, desiring to do so, get into farming. Then may agricultural education be said to be vocational education—and not until then.

No one can be closely identified with farming and not be somewhat aware of the transcending difficulties facing it. I have said repeatedly that eventually all of the good farms, good both from the standpoint of farming and farm living, must be manned by skilled and intelligent individuals. Even in their hands the solving of these problems will be difficult enough; in less skilled and in less well-trained hands both agriculture as a business and farming as a way of living will certainly suffer.

This means, of course, that it is no longer safer nor wise to leave the welfare of agriculture in the hands of a trained few—largely in positions of leadership and pattern-setting farming—but that the mass of farmers must come to be both skilled and intelligent in the handling of their problems; that is, if for the farm group as a whole there is to be retained a vestige of democratic direction and control. If the group as a whole is to be allowed to continue to solve its own problems, it must retain that right by being right in judgment and action. This, you will admit, calls for intelligence of a high order.

## What the Teacher of the Future Must Know and Be Able to Do

Programs of agricultural education of the future must increasingly be based upon concrete, authoritative, and valid evidence as to what are the facts concerning placement-in-farming opportunities. Teachers of vocational agriculture must know. As they attempt in the future to serve the needs of boys and young men wanting to farm, they must do so on a basis of some relationship between supply and demand, a close approximation of the number of young men wanting to farm, and of opportunities for going into farming. Their programs of instruction must be supported by the full psychological effect of the sense of

realness and the fact of the availability of these placement-in-farming opportunities.

Teachers of vocational agriculture dealing with programs of vocational education in agriculture must not only take cognizance of the numbers and sequence of placement-in-farming opportunities but must also be concerned with the character and quality of these opportunities.

Young men wanting to farm must be taught to appreciate both the perpendicular and the horizontal aspect of each farming opportunity with which they are confronted (that is, the opportunities to advance from one farming status to another and the chances to expand at any given status level), else only geographical bigness or complete ownership becomes the ideal toward which they will aspire and work.

## Placement Primarily a Local Problem

If we are to deal systematically with this problem of placement in farming, we must evaluate farming at its various levels and know at what level, in which proportion, and at which price young men may enter. This means that placement in farming is primarily a local problem and gains wider significance for any local department only as the local needs and demands are met. This means that placement in farming is concerned with the entrance demands which farming opportunities of all levels and degrees make upon aspiring young men.

It has been agreed that for the most part young men wanting to get into farming finally do so thru one of three routes. They may get into farming thru marriage; they may get in by inheritance; or, finally, they may have to work their way in. To know to what extent each of these three methods is true locally becomes the business of the teacher of vocational agriculture. In setting up the local program of systematic instruction, he must take cognizance of these facts and so organize and administer it as to be of the greatest possible service in helping the young man get what he will have to have to get in.

## Growing Into Farming

Over one of the recent department exhibits set up in a western state the students had painted this heading: "Future Farmers Grow Into Farming." This is just another way of saying that, for the most part, young men must expect to get into farming on a gradual, up-the-ladder style of progress, and that vocational education in agriculture must help them make the necessary additions to their assets by which they move up. Growing into farming means just what it says, the gradual accumulation of things necessary for farming. If we never had a sound argument before for supervised farm practice, we have one now. That, in fact, is just what supervised farm practice is, a growing into farming. Most young men make their only real solution to their placement problem thru the development of a supervised farm practice program that is so designed as to guarantee to them the getting together of the things necessary to break down the resistance to occupational entrance.

Placement, therefore, becomes a problem whose best chance for solution rests in the extent to which long-time, continuous effort is brought to bear upon it, rather than one dependent for its success upon a spectacular ninth-inning finish to what was otherwise a rather mediocre game. The solving of the problem of placement should start from the first day the boy or young man enrolls. It is not completed until the student ceases to be a full-time student and becomes a full-time worker.

**C**ATEGORICALLY summarizing, it may be stated that:

1. The biggest problem facing America is that of helping young men get jobs, of helping young men wanting to farm to get into farming.

2. Placement in farming is a local problem and will be solved largely on a local basis.

3. Workers in vocational education in agriculture must come to accept the final achievement of getting into farming on the part of boy and young men students wanting to farm as the best criterion for measuring the worth of their problems of instruction.

4. Eventually all "good" farms (good for business and/or for living) must be manned by skilled, intelligent farmers.

5. Vocational education in agriculture must be concerned with training programs and outcomes for all grades and classifications of farmers and not be satisfied merely with what it is able to do for a leadership minority.

6. Workers in vocational education in agriculture must know the facts concerning placement-in-farming opportunities, facts concerning both the quantity and the quality of these opportunities.

7. The teacher of vocational agriculture must know what are the various farming statuses found in his community and in what proportion young men may enter the farming occupations thru each status.

8. Not only must the teacher know the relative numerical importance of the different local farming statuses, but he must also know what differential demands each one makes upon young men as a price of entrance.

9. In the main, most boys and young men will have to work their way into farming—that is, "grow into farming."

10. Local programs of agricultural education should be pointed in their organization toward helping boys and young men get what they have to have to enter farming at any level.

11. "Getting" to get into farming is a progressive thing, starting the minute the young man enrolls and continuing until such time as he has made an initial satisfactory solution to his placement problem.

Vocational education in agriculture is placement in farming as it:

- finds and evaluates the opportunities to get into farming;
- finds what young men have to have with which to get into farming; and
- finds and implements a way for these young men wanting to farm to get what they have to have to get in.

## The Role of the Farm Placement Service in Placement and Establishment of Young Men in Farming

O. D. HOLLENBECK, Director, Farm Placement Service,  
Washington, D. C.

**T**HE subject we are discussing directly concerns the Farm Placement Service, since placement of youth in agriculture is a part of the broad placement program of all State Employment Services.

Employment service is one of the two major programs of the Bureau of Employment Security in the Social Security Board at Washington, the other being unemployment compensation. Under the terms of its enabling statute—the Wagner-Peyser Act—the Employment Service is responsible for operation of public employment offices thruout the length and breadth of the country. One of the fundamental and vitally important functions of this bureau is to maintain a farm placement service.

In each state, funds appropriated by the State legislature are matched by Wagner-Peyser funds, and augmented by Social Security Board funds. Each state employment service consists of a chain of local employment offices strategically located so as to serve effectively the employment needs of the state. Most of the states west of the Mississippi are primarily agricultural, and many of them, to satisfy the vital need of farmers for seasonal labor, must recruit workers from great distances and across state lines. Certain sparsely settled states grow crops which require large volumes of farm labor at peak seasons of the year. Such crops are sugar beets, cotton, lettuce, spinach, and fruits of various kinds. Some of these crops are guaranteed by contracts; others must face open competition on the market and all the risks attendant upon the vagaries of Nature.

The Farm Placement Service assembles information on crop acreages, conditions, and probable yields; the seasons and periods when outside labor will be needed; the character of the work required; the number of men that will be necessary in each instance to care for its particular needs; the wages to be paid; the living accommodations to be provided laborers; the costs of transportation; the most direct routes between points; and the sources of supply nearest to the field of activity from which labor can be recruited. In short, its purpose is to meet the needs of both growers and workers and, at the same time, to avoid unnecessary and fruitless migration of labor.

In 18 states we have specialized to the extent of appointing farm placement supervisors to serve the employment needs of both workers and growers thru the facilities of public employment offices and in those 18 states farm placements will approach the million mark this



O. D. Hollenbeck

year. In other states, more heavily settled and where the land is productive of various kinds of crops, we find smaller farms of the more diversified types. Here the need for a specialized service with farm placement supervisors has not yet become acute. Yet in states which do not require a special farm placement supervisor on a Federal level, the state employment service is constantly in touch with all problems that affect agricultural labor within the state. The state employment service is obligated to render service to the growers and to agricultural labor, even though the problem is not one of major proportions such as would be the case in a state primarily agricultural.

### Trends In Farm Labor Requirements

In earlier days farm labor was in great demand, but it was not so much skill as brawn which was demanded. Today, with the progress that has been made by agricultural schools and farm machinery, farming has become a business proposition. No one can expect to operate a farm as his grandfather did and still compete with the farmer who operates on a modern, businesslike basis. Where formerly the farmer came to our employment offices and requested a "young fellow, healthy and strong," today he is very likely to say, "I want a man who can operate and repair milking machines, tractors, corn cutters, binders, and other types of machines." Farm labor registered in our employment offices is now carefully classified according to individual skills and aptitudes, along much the same lines as industrial workers are classified—machinists, mechanics, brick layers, carpenters, etc.

Trained labor is always needed. The training of the farmers of tomorrow is in the hands of teachers of vocational agriculture and the agricultural schools of this country. You have the problem of selection of individuals who can benefit by training and who will, at the end of the course, be qualified to operate farms with or without the direction of experienced farmers.

There is no sure method of selection, no method which will insure that the individual taking your courses will be a success. Certain boys have the aptitudes, interests, and initiative to assimilate the training given to them. You must know something of their background and environment. The employment offices must know something of the labor needs of the farmer, of the qualifications and aptitudes in demand, and of the supply which is available. At the end of your course or during vacations many of the boys will have jobs available for them on the farm at home or jobs with farmers in their communities. Others need the job assistance which the employment service is endeavoring to provide. Our offices are increasingly made aware of the labor

(Continued on page 198)

\*Address delivered at American Vocational Association Convention, Grand Rapids, Mich. December 8, 1939

# Future Farmers of America

L. R. HUMPHERYS

## Parent and Son Relations

LESLIE NELSON, Adviser,  
Box Elder Chapter, Brigham City, Utah



Leslie Nelson

THE farm youth of today are continually being reminded that it is their duty to pay homage to their parents. "Honor thy father and thy mother" is one of the basic commandments, and has always been considered as one of the cardinal virtues. It is unfortunate that more has not been said about the parents honoring and respecting their children. Both of these principles are basic if we are to have a desirable parent-and-son relation. Possibly much of the parental disrespect is due to the parents' lack of a proper understanding of the problems which are very vital to the life of a son. Any means, therefore, which has for its purpose a better understanding and a closer working relation between parent and son is worthy of our consideration.

We do not know the method that Elijah, the prophet, used when he was sent to "turn the hearts of the fathers to the sons, and the hearts of the sons to the father," but we have an idea that he may have inaugurated the first "father and son banquet." Essentially the purpose of a parent-and-son get-together is the same purpose that characterized the mission of Elijah. If such a meeting were responsible for making only one parent aware of his son's problems, the effort would be justified. No one can predict or foresee the good that may result from the joint thrill that comes as parents and sons are brought to a simultaneous awakening of their need for each other. There is no other setting that will provide as many avenues for this understanding as will the *parent-and-son meeting*. The informal meeting, the programs, the common problems, the presence of friends and neighbors—all these circumstances combine to make the whole affair conducive to its primary purpose of promoting good relationships between boys and their parents.

The annual parent-and-son function provides a real experience for boys in planning, which will be a valuable asset in any line of endeavor. It has a socializing influence, promotes a co-operative attitude, a spirit of comradeship and friendship that fills the air with a confidence which is so much needed in rural life.

There are at least three types of the "parent-and-son" social functions which are suitable and will be beneficial in an F. F. A. program. The most common and universally used is the "father-son"

banquet. Some chapters are shifting the emphasis to a "parent-son" banquet in which the mother as well as the father is invited to participate. The chief objection to this event as a general practice seems to be the increase in expense and the difficulty of getting facilities to entertain the extra number of people. Then, too, some people have a theory that father and son can get closer together if the mother is not present. In spite of these objections, most advisers will agree that the presence of the mother increases the values of the banquet and that our program suffers without the support of the mother.

A second type of get-together is the parent-and-son meeting. This type is much simpler than the banquet, can be made very effective, and is not so restricted. The invitation list may include pre-vocational students, their parents, key farmers, business men, and many others whose co-operation should be secured. The program for such a meeting should be short and snappy. It should consist for the most part of numbers from the boys with an occasional short talk by a parent who is enthused with the accomplishments of Future Farmers. After the formal meeting, social contacts can be encouraged by serving light refreshments. Such a social is *not* expensive and with the possibilities of a wide variation in the guest list, develops a community consciousness for the need of Future Farmers in community planning.

THE third type is generally and collectively referred to as the parent-and-son social. This type has as many variations as there are meetings. All such social functions have the objective, "an evening of entertainment." This event may be a "smokeless" smoker, a dance, a stag party, a series of comic stunts, social games, professional entertainment, or any combination of these events. In such social events, it is assumed that parents and sons should play together as well as work together. As a social it not only serves this purpose, but also brings John to a realization that his neighbor Henry is a pretty good sport instead of an "old fossil" as he had supposed. I have watched men and boys participating in games together and in practically every case, have noted the bond between them strengthened by the game itself. The son's eyes glow with triumph when his dad makes a "good shot." The dad's expression of sympathy gives away his true feeling when his son fails to "score." The "social give and take" teaches sportsmanship, co-operation, tolerance, and a feeling of "love thy neighbor."

It cannot be said that any one of these types is better than another. Each has

its place, and each is effective in working toward a common goal. One chapter may use only one type of social year after year. This procedure may be the best plan for a chapter. Another chapter may use several types of socials in any one year. Still others follow the plan of alternating with a different type each year. In any event the main consideration is that *every* chapter should use some definite organized means of bringing parents and boys to a *common understanding of individual and community problems*.

My limited experience leads me to submit the following lists of do's and don'ts in connection with the parent-and-son get-together.

### Do's

1. Organize early with individuals or committees responsible for all items.
2. Hold social functions during the slack season.
3. As far as possible use food grown from boys' projects.
4. Secure co-operation of home economics department. Don't let the home economics girls do all the work.
5. Publicize your social functions.
6. Make the most of F. F. A. color and emblem.
7. Send written invitations to special guests.
8. Plan a "substantial" not a "fancy" menu when you have eats.
9. Work out a system of financing that will allow for a small reserve.
10. Pay all bills promptly.
11. Return all borrowed property.
12. Have a functioning clean-up committee.
13. *Have a good time!*

### Don'ts

1. Wait till the last minute to work out details.
2. Let one boy do all the work.
3. Have speakers talk while the eating is in progress.
4. Let the program drag out too long.
5. Embarrass anyone by calling on him without warning.
6. Try to use everybody on the program.
7. Let one speaker monopolize all the time.

Fundamentally, the boys should be made to realize that the Future Farmers of America is their organization and that the responsibility of success rests squarely on their shoulders. For the most part the boys should do the planning, furnish the program, and grow under the influence of public approval and the thrill of succeeding. It is always in keeping with a sense of propriety to hear from a representative of the school administration, but the purpose of a parent-and-son get-together is to improve the relations between parents and son. The boys and their parents should be the main figures in the cast.

# The Relationship of the F. F. A. to Vocational Agriculture\*

E. L. COLLINS, Instructor,  
Chanute, Kansas



E. L. Collins

THE fact that departments of vocational agriculture were started in the public schools approximately ten years before the organization of the Future Farmers of America originated no doubt accounts for the fact that in the earlier years of the organization it was not tied so closely with the program of vocational agriculture as it is today. School officials thought of the F. F. A. as just another club, and it was considered an extra-curricular activity. Many teachers had somewhat the same idea and thought that all F. F. A. meetings and activities, as well as the planning and preparation of these activities, should be done outside of class time. As a result of this attitude the boys did not realize the importance of the two going together. Many boys who enrolled in vocational agriculture did not join the F. F. A. and caused the group to be somewhat divided.

This idea has rapidly changed as is shown by the fact that the number of departments of vocational agriculture having F. F. A. chapters is rapidly approaching 100 percent, with 100 percent membership not far off. School officials are realizing the important place held by the organization in our program and are co-operating to allow school time for meetings and activities.

## Saving Time Thru F. F. A. Activities

Teachers may have felt at times that the F. F. A. takes too much time, or that it isn't worth the time it takes. Some teachers have organized chapters, with perhaps an occasional meeting, but that is about the extent of the organization. However, most of the less successful teachers, or those less professionally minded have been those who did not have a good active Future Farmer chapter. Altho we have an organization with boys in charge, and presumably assuming the responsibility, we cannot deny that a successful organization depends upon the teacher. That doesn't mean the teacher should do all the work. In fact, the more work the boys can do themselves the more interest they will have in the organization, but the teacher must promote and guide so that all boys take part.

A good active Future Farmer chapter, after it is going, will save a teacher work, or at least more can be accomplished with the same amount of work. As teachers, we are not particularly seeking a lot of praise and publicity for ourselves; but in order to strengthen our position in a community and to get the best community support, people must know what the department is doing. This publicity can best be brought about by the Future Farmer chapter—

by sponsoring activities that the people of the community see or in which they have a part, such as programs at civic clubs and farm organizations, booths, exhibits, fairs, co-operative projects, and community service activities.

## How We Build Character

A chapter can help a teacher to handle certain students who are problems. Two years ago a boy from a good farm family enrolled in my class. He was a boy who was always tormenting someone. He picked on smaller boys. He used obscene language. He was a problem in class, always talking and squirming, but doing nothing very serious. In short, he was a "smart alec." About two months after school had started, we were voting on the new students for Greenhand members. When this boy's name came up, a rather lengthy discussion followed about the things I have mentioned. If they had voted then, the boy would have been voted out. But as the discussion was going on, I suggested to the officer sitting next to me that we put this boy on probation. He should be allowed to attend meetings and to be with the other boys, and even go thru the initiation ceremony, but he was not to receive his Greenhand membership card until he had changed his ways. The officer presented the plan to the group, and it met with their approval. They voted that the president and I talk to the boy, telling him about the discussion of the group, and that he would receive his Greenhand button in six weeks if the chapter at that time was satisfied he had changed in his manner so that he would be a credit to the group. As we talked to him, he was far more concerned than we expected. When we finished, he said, "I can do it." He did. It changed that boy's life. He now is one of our best members and will be a strong candidate for the State Farmer degree in his senior year.

I have heard of other teachers who have allowed the members to handle certain situations by the belt line. A meeting devoted to proper conduct around the school for Future Farmer members may be very successful if the boys are allowed to handle the discussion. There is no question but that the F. F. A. brings the teacher and the boys closer together and gives the adviser a better chance to help them with classroom work, shop, farming program, and other phases of the work.

One of the main reasons for weak Future Farmer chapters is that the instructor is not completely sold on the possibilities thru the organization. The inspiration and ambition to promote a good chapter is the main thing. Perhaps we need more training for new teachers along the lines of F. F. A., more schools with courses in summer schools on sponsoring chapters, and more teachers attending those courses already offered. A course which I had under Mr. Ross in Colorado the summer of 1936 was the real beginning of my success in

promoting Future Farmer chapters. I received not only valuable information on how to promote a chapter, but also the inspiration and confidence in myself that I could do it.

## Relationship of Classwork to F. F. A. Program Planning

If a Future Farmer chapter is going to conduct a program of any size, a large amount of work in planning and preparation must be done in class time. This is necessary because the farm boys do not have time to stay after school and it is difficult to have them return at night as much as would be necessary. We have used two methods of building our program of work in class time, both with good results. One is to have all the members of each committee in the same class. The committees in that class can then all work at once. They can hold a special meeting at any time. This is a very convenient method, and it is a very efficient method to get the job done.

The other method I have used is to have the members of each committee from the same class. The whole class then works with one committee. This is better than having all the committees in a class at work at once. The chairman of the committee takes charge of the discussion, a member of the committee keeps record of decisions on the blackboard, another member of the committee acts as official secretary for the committee and makes the copy which is turned over to the organization. Every boy in the class may copy the program in his notebook as planned. This will help hold the interest of the group.

The members of special committees might well be all from one class in order that plans can be made during class time. Plans for meetings might be made in this way, but care should be taken that the meetings are not a duplication of classroom work. Good meetings are very important in promoting a chapter. They must be different from classroom work. The educational part of the meeting should be on subjects not covered in classroom. Good, interesting meetings will make a boy take more pride in the organization. Boys should plan their own meetings, but a teacher will need to guide them and make suggestions. A good meeting must be snappy, orderly, and interesting, with provision for both education and entertainment.

If boys are to take much interest in any organization they must know what it is all about, so it is necessary to keep them informed. The best way I have found to do this is by a series of organized lessons on the Future Farmers of America organization. I begin these lessons early in the school year with my new students. These lessons may be presented in several ways, possibly by advanced students or older members. I have found the best method is to assign questions, give the reference, and, after a short study, have discussion. This series of lessons might include:

1. Why I am going to high school
2. Why I am taking vocational agriculture
3. The origin and history of the organization
4. The purpose of the F. F. A.
5. The F. F. A. emblem
6. The scope of the organization—national, state, local
7. The kinds and grades of membership
8. Advantages of being an F. F. A. member
9. The Future Farmer program of work

10. How may I become a Greenhand member?
11. How may I advance to higher grades of membership?

These lessons or discussions will take several days, but such time is well spent. They not only help the new students to become interested in the organization, but give those who become members a background and knowledge of the organization that will help them to become better members. One of our local requirements for initiation to the Greenhand degree is to pass a test over this material. This test is conducted by advanced Future Farmer members, and the scores are not counted in classroom work.

#### Relationship to Supervised Farming Programs

After studying the F. F. A. organization, proper interest created is a great help in promoting the idea of a farming program among students. I do not discuss farming programs until we have completed these discussions on the F. F. A. In these discussions it is easy to emphasize the importance of the farming program in advancing to higher ranks of membership. This is the ideal place to start promoting farming programs for the new members.

We begin our discussion on farming programs by presenting the topics:

1. How could I accumulate some capital while going to high school?
2. Why I want to grow crops and raise livestock
3. In what ways would growing livestock help me to accumulate capital?
4. How would growing crops help me to accumulate capital?
5. The advantages of having both crops and livestock
6. Possibilities of getting a loan if I grow feed
7. How could I expand my farming program?
8. Examples of State Farmer programs for the four years

I have found it rather easy and effective to emphasize the importance of conducting home-improvement projects and home-practice jobs as a means of helping a boy advance to higher degrees of membership. In this same way, community service and co-operative activities can be promoted. Boys can be encouraged to conduct a better shop program with this in mind.

These phases of a boy's program should be considered in selecting State and American Farmers. A local chapter can well set up standards along these lines for the advancement to the degree of Future Farmer. It should not appear that the program is the teacher's. The leadership must come from the chapter, and in most cases the requirements should be first discussed by members at Future Farmer meetings. They may be discussed in the classroom later.

#### How We Develop Leadership

Leadership in the chapter is necessary to promote all these ideas. This leadership must begin with the officers. They must be trained, not only after they are elected and installed, but previously, by giving them responsibilities on committees, as program chairmen at meetings, giving speeches at banquets, and in many other ways. Good officers are essential to a good chapter. The ambition to be an officer sometime must be instilled in the boys to persuade them to prepare themselves and to prove themselves worthy of being elected. This may be done thru their ambition to

become State Farmers. The qualifications of officers should be discussed early. A teacher must see that the right boys are elected. This can be done partly by the nominating committee, which in our chapter consists of the officers who are graduating. Then, if certain boys should be elected out of those nominated, we plan beforehand for influential boys to give campaign speeches. This procedure works.

After the officers are elected, they must receive more training. First, they must practice and become efficient in use of the ritual and parliamentary procedure. The teacher needs to have conferences with the officers as a group and as individuals. He must encourage and compliment them on a good piece of work. They must realize the importance and responsibility of holding office. A good set of officers will encourage leadership from the other members.

The Future Farmer chapter offers opportunity for leadership that would be impossible to give thru classroom work alone. It is difficult to visualize a vocational agriculture parent banquet, assembly program, or meeting at civic clubs and other organizations without the F. F. A. organization. Most of the color and enthusiasm necessary for these activities would be missing. These activities are almost necessary, as I have mentioned, to promote the program.

In our chapter we have had a public speaking contest for the past three years. That, I feel, has been very successful in developing boys in this ability. We have had from 12 to 18 entries each year. Many of their subjects have been on simple phases of production in agriculture, others on aspects of the F. F. A. organization and advanced problems in agriculture. We have not tried to make orators out of these boys, but have endeavored to develop their ability to say what they desire in public. In addition to developing speaking ability, they have learned more about the information they have used as a subject. This contest has helped to develop good officers. Would a public speaking contest of this nature be possible without a Future Farmer chapter?

High standards and ideals in personal conduct, courtesy, personal appearance, friendship, and good attitude must be attained by the members of the group. Boys with objectionable character are a discredit to the organization. They must either be changed or not allowed to become members. An organization with high ideals and standards will have the respect and support of its own members, the school, and the community.

#### Class Instruction on the F. F. A. as a State and National Organization

Boys should be made to realize the size of the F. F. A. organization. They should know of the state association and national programs. In our state, activity reports are due in the office of the state executive adviser by November 1. This year, 141 out of 150 chartered chapters made reports by this date. The reports must be in by that date in order that the chapter may share in F. F. A. honors such as better chapter contest, public speaking, and State Farmer selections. In most of our district contests and activities, only active Future Farmer members are allowed to participate.

The annual report on the program of activities can be a great stimulus in promoting chapter activities and in increasing the participating of members in F. F. A., in classwork, and in school activities, if used in the proper manner. There are, no doubt, several ways in which this can be done. I shall discuss briefly how this is done in our chapter.

#### Annual Report Includes Individual and Group Achievements

Our annual report of activities is begun as soon as any activities are finished. The committee in charge of the activity checks up on the accomplishment immediately after the activity is completed. Boys compose the page for the annual report on that activity at that time. Any newspaper clippings or pictures of the activity are included. After the page is finished, it is filed away until the end of the year, when all the pages are bound together. An ordinary loose-leaf notebook works very well for this to save the cost of binding.

Besides including in this report pages with pictures and material about chapter activities, each member has a page of his own. This page has done a lot in the chapter to get the members to take part in all class and F. F. A. activities. In order to obtain the material for this page, each member keeps what we call his "personal record page" in his notebook. At the beginning of the year, the following headlines are put on this page:

1. F. F. A. Activities
2. School Activities
3. Home Improvement
4. Home Practice
5. Farm-Shop Jobs

Under F. F. A. activities, a boy enters chapter offices he holds and committees of which he is a member. Any part taken in programs at meetings of any kind, such as banquets or programs for outside organizations, F. F. A. teams, judging, athletics, and all other major F. F. A. activities are entered.

Under school activities, he enters any school activities, other than F. F. A., in which he has a part. These would be class offices, student council, debate, music, athletics, assembly programs, or scholarship awards.

Under home-improvement, home-practice, and farm-shop jobs, he enters jobs which he completes in any of these divisions.

These entries are made as they are completed. Part of one class period each week is used for this. Entries must be approved by the instructor for the home-improvement, home-practice, and shop jobs. Near the end of the year, a committee checks these entries to see if all are worth while, and they may question the individual on any they wish. After the material has been approved by the committee, the boy copies it on a page as he wants it to appear in the final report book along with pictures and information about his farming program.

This information could well be prepared in the form of a scrapbook or yearbook, but I feel that my boys have more interest in it when they know it is part of the report. This page has several values. It gives every boy a part in making the final report or scrapbook. Every boy likes to have his page look as if he had done something, so it encourages him to do things that he could

enter under each heading. It has been our practice to bind all this material in book form with the other material of the chapter activity report.

After this book has been returned from the state office, it is sent home with each of the members. Yes, it gets soiled, but it is worth while because all parents can see what the chapter and individual boys have done. I have known of parents who have suggested things which their boy might do to include on his page. Nearly every boy will try to make his page better the next year.

This page alone has worked wonders in promoting the vocational agriculture

program. It was hard for me to get boys to do any home improvement or home practice before this idea was used. Many of the boys' shop programs have been improved. In addition, there is more interest in taking part in F. F. A. and school activities.

The Future Farmer organization is growing by leaps and bounds because of what it is doing for the youth of today, or the farmers of tomorrow. Vocational agriculture and F. F. A. must go hand in hand if either is to meet its purpose.

\*Address delivered at the annual convention of the American Vocational Association, Vocational Agriculture Teachers' Sub-Section, Grand Rapids, Michigan, December 9, 1939.

## Teaching Co-operation Thru the F.F.A.\*

IVAN JETT, Adviser  
Stamping Ground, Kentucky



Ivan Jett

I DO NOT think anyone questions the need for co-operation among the rural people and that we will obtain it mainly by formal education. Nearly all workers in industry, labor, and professions have formed organizations in which they co-operatively seek to better their position. The farmer has been living in a golden dream by having a fertile soil which has produced liberally and risen in value every year. The plant food elements are being lost, markets are being taken by other countries, and farm values in many cases are declining.

### Essentials in Co-operatives

A co-operative must increase the profits or the savings to its members, but in doing so it must keep in mind the members' future welfare as well as the present. For example, it must build up reserves during peak periods so that they may ease the load during depressions. This has been and is being followed by private industry, and is the only way that the co-operative may compete during low periods.

Before we can appreciate anything, we must understand it. The members must thoroughly understand how their organization is set up and operated and, even more important, why it is done in this manner instead of some other way.

Many efforts have been made to organize co-operatives among farmers. Some of them have succeeded, but many have failed after a few years. They have run in cycles and have not become permanently established. This may be because the co-operatives have stressed the increase in profits or savings and have not taken the time nor spent the money actually to educate and thoroughly convince the farmer, his wife, sons and daughters, merchants, etc., of the necessity and value to him. If we keep it entirely on the dollars and cents basis, there are frequently short periods when it may be most profitable to be an independent, but if the farmer and

his friends are thoroughly saturated with co-operative ideals and policies, they will see that this opportunity is very short lived and that permanent profits and happiness accompany collective bargaining.

We must realize the fact that if a co-operative does not give the same service and, in addition, other inducements at the same expense, there is no justification for its existence, and it will soon fail. It might save the members a small amount of money, but it must do even more than this service. That point alone will determine the success or failure of any co-operative.

The co-operative must have a true leader at its head, one who has the ability, energy, and honesty to represent his members intelligently to the best advantage. He may be guided by the members, which would be necessary if carried on by co-operative principles, but the leader will in many cases determine its accomplishment. To get the right type of leader, he must be paid in proportion to the services he renders.

Business principles should always be used. Co-operatives should advertise and give the members the personal touch that their feeling of importance demands. Yes, it is a co-operative and all should be treated alike, but the business must have a personality. Nature has endowed us with this demand for recognition, and a successful co-operative must satisfy this demand. We must create as many offices as possible and give each member some responsibility. Make it his organization instead of an organization of which he is a member.

### Examples of Successful F. F. A. Co-operatives

The Stamping Ground Chapter of the Future Farmers of America has endeavored to meet these six essentials of a successful co-operative. I do not claim that it is a model, or that it could not be improved, but I am merely using it as an illustration because I am more familiar with it.

Our co-operative has its regular officers, and in addition a board of directors. It was founded in 1934 with \$125 raised by a play, and by selling magazines and special certificates which gave the bearer the right to purchase at re-

duced prices. All the money was spent on a building, and it was necessary to borrow money to purchase feed.

Today we have a capitalization of over \$1000 and carry on a \$5000 business annually. We extend credit for feed for members on projects, lend money to make capital purchases such as hogs, brooder houses, etc. We lend to members who do not have a financial rating so that they may borrow from the bank. We pay some members five cents per 100 pounds, but sometimes during the year we see that each member has an opportunity to mix feed and to examine prices and feed mixtures. We purchase in large quantities on low markets so as to sell at a reasonable price.

Many times we sell under cost so as to encourage proper feeding. Take, for example, laying mash. We will not sell a low quality or the wrong feed to a farmer at any price. If a farmer wanted to buy wheat bran to feed to his cow that he was feeding corn stover and corn, we would refuse to sell him. He must buy a 24-percent dairy feed or some other high-protein concentrate. We guarantee satisfaction and to sell at the same price or less than anyone else.

THE boys have organized a Spotted Poland China Pig Club to encourage breeding and sale of "Spots." From one sow in the community there are now 80 in four years. This club registers, advertises, and buys as a group. All breeding to boars is controlled, and members receive special rates and consideration.

For the past two years they have raised approximately one acre of tobacco co-operatively. Each member pledges to work at least one day in the crop or to hire someone to take his place. Last year our crop brought us a net profit of \$250, and there was only one crop on the entire Burley market that brought a higher price per hundredweight.

These boys have carried on many other co-operative activities such as raising \$3,000 and constructing a \$5,000 chapter house. It is air-conditioned, has electric stove and refrigerator in the kitchen, living-room suites, studio couch, occasional tables, chairs, recreation room, etc. The boys did all the carpentry, wiring, painting, stone-laying, and the other necessary work—a monument itself to co-operation when we think that the money was raised and the house constructed by group effort.

This same group built its own farm shop, sponsored a \$35,000 water system for the city and a \$14,000 school-ground improvement project. Each year they sponsor a home beautification contest, and last year it resulted in \$30,000 worth of improvements. Each year they make a summer tour of several thousand miles and, because they work together, the cost is very nominal.

Can we train the members of the Future Farmers of America in co-operation in any other way except thru co-operation? When we think of all the accomplishments possible as a group and the very few things that can be done as an individual, then we know that our future and the future of the rural areas and the F. F. A. lies in co-operation.

\*Address delivered at the annual convention of the American Vocational Association, Grand Rapids, Michigan, December 8, 1939.

## Farm Placement Service

(Continued from page 193)

needs of farmers thru county agents, publicity, agricultural bureaus, and other means of contact. And farmers who are in need of labor are increasingly looking toward employment offices to supply it.

### Attention to Guidance of Youth

Employment offices are giving more and more attention to the employment problems of the youth of this country, both in industry and agriculture. More and more vocational education is being provided in public schools. Youth is being counseled on the courses available and on opportunities that may await them after the courses are completed. We expect each one of our offices to be a clearing house for information on employment; and we invite the closest co-operation between teachers of vocational agriculture and personnel of local employment offices. The employment office is the logical source of information with regard to available opportunities—local, state, and out-of-state. The employment service has established a clearance system which provides local offices with knowledge of labor shortages and surpluses throughout the country.

In many cities a close relationship exists between vocational counselors and local employment offices. The training and counseling of students is a part of the school system, and the employment offices study placement opportunities for young men who pass the training courses. Special attention is given to registration of youth, particularly to those without previous work experience, in order that they may be fitted into various occupational classifications.

Our urban population is comprised to a large extent of youth who have come from the farm anticipating greater opportunity for success. Not all of them would have been successful on farms. Many from the rural areas, who would have been successful in farming, were forced to accept work for which they were totally unfitted in factories and mills. Success in any occupation depends upon interest, natural aptitudes, and proper training, whether it be on the farm or in the professions, in business or in industry.

### Study Problems of Vocational Adjustment

During 1938-39, the Division of Standards and Research of the United States Employment Service, in co-operation with the American Youth Commission, made special studies of the employment opportunities for youth in Maryland and Missouri counties. Various features of these communities as labor markets were examined and analyzed. Numerous persons were interviewed in order to obtain a cross-section of thought and attitudes. Various problems were brought to a focus, among them the major question of vocational adjustment for rural youth. Increased mechanization of agricultural processes and declining fertility of the soil are reducing the demand for farm labor in farm occupations. Local industries provide but limited employment possibilities. Therefore, many farm youth are forced

to migrate to industrial centers in search of employment. But labor surpluses are also to be found there in many occupations.

In the Missouri counties studied, the increased mobility of labor has been one of the most significant changes in the last 30 years. The effect has completely altered the local labor market.

### Changes in Social Attitudes

It was the general opinion among residents of these counties that there has been a tremendous change in social attitude during the last 25 years. Especially does this apply to the younger generation which is just entering the labor market. These young workers differ from the previous generations in much of their social outlook; in the standard of living which they expect; in the sacrifices they will make for the future; the kinds of occupations they want; the hours they want to work; the size families they want to raise, and so on thru the long list of personal reactions of the individual to his environment.

Regardless of whether they stay on the farm or move to a rural town or into a large urban center, there seems to be a united front against "sacrifice living."

It is clear that most of these young families will never own their own farms if they continue to spend their incomes for immediate enjoyment, which is an apparent tendency. There is every reason to believe that they are going to insist on raising their standard of living and will care less about the so-called "sacrifice farming."

If we in the Employment Service are to be of real help in the placement of boys on farms, we need your full support and active co-operation. You need to know what facilities are available to the boys when they are ready to seek jobs. You can be helpful in promoting closer liaison between the farmer and the employment office, so that each employment office may know of the labor needs of the farmers in the community which it serves and thereby render a better service to the boys who take courses in vocational agriculture.

\*Portions of an address delivered at the Annual Convention, American Vocational Association, Grand Rapids, Michigan, December 7, 1939.

## Keeping Up to Date

(Continued from page 183)

Within a year or two, there have been reported in the *Agricultural Education Magazine* articles on the integrated course, horizontal organization, and cross-sectional plan. Prof. A. M. Field of Minnesota has been preaching this for many years. Curricula change, then, not just for the sake of change, but because agricultural, economic, and social changes require curriculum changes. It is a part of your progress.

There are doubtless many trends, problems, and issues. We would not agree on the number nor on the points. The main thing is to start on a few. Some "long-range" thinking will serve you and your work. It will be some of your best professional improvement.—C. R. Wiseman.

## Democracy

(Continued from page 185)

There is great concern these days over the threat of disturbance from organized groups espousing some form of dictatorship. In the midst of the social and economic chaos in the old world, the slogans of revolution again flare up and the democratic peoples fear for the future of self-government. We are sometimes asked to suppress the organizations and expressions of people who subscribe to the so-called "alienisms." Much as I dislike these schemes of regimentation, I am convinced that they cannot be suppressed. They must be outdone and outmaneuvered.

### The Power in Rural America

One of the great sources of stability and sound progress is represented right here in this room. The families who live on the land have given our democracy some of its greatest leaders. In this time, we who labor in the vineyard of education look to the quiet, thoughtful sons of the soil to resist movements that would weaken or emaciate public education, and to insist on a forward march. A nation which is spending as much on its intoxicating beverages as it is on its schools cannot seriously accept the notion that we are putting a disproportionate amount into education. This is your problem, because an enlightened America is essential to your welfare.

Here in this western hemisphere is "earth's last best hope" of sheltering human values. Here we are building on the foundations of a vigorous agrarian democracy. Here we can, if we will, stop the growth of blatant dictatorship and hold high the beacon light of freedom as a standard for the world to follow.

\*Excerpts from address delivered before the American Farm Bureau Federation, Chicago, Ill., December 5, 1939.

## Book Review

*Food and Life*, Yearbook of Agriculture, 1939, U. S. Department of Agriculture. For sale by the Superintendent of Documents, Washington, D. C. Price \$1.50. Also available to vocational agriculture departments upon request, as long as supply lasts, thru U. S. Senators and Congressmen.

Two thirds of the 1,165-page volume is devoted to animal nutrition, one third to human nutrition. Some sections of the book will be difficult for vocational agriculture students to comprehend, but many sections will be easily understandable to persons who have not had basic science training.

The chapter on "Food Fads, Facts, and Fancies" should not be overlooked as the reader is warned against such things as "health foods," "energy foods," and powders to counteract acidosis and "acid system." The 91-page summary, written by Gove Hambidge, principal research writer, Office of Information, is a veritable gold mine of facts dealing with the subject of human and animal nutrition. The 1939 yearbook should have wide usage in the field of vocational education in agriculture.—A.P.D.

April

# Decadring Facsimile, M.C.D. Tabulation Sheet, First Series

DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON

TABLE 1.—NUMBER OF FARMS, LAND IN FARMS CLASSIFIED ACCORDING TO  
BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	Number of farms	LAND IN FARMS, APR. 1, 1940, CLASSIFIED									
			All land in farms (acres)		Cropland Harvested		Crop Failure		Cropland idle or fallow		Plowable past	
			Total	Av. per farm	Farms reporting	Acres	Farms reporting	Acres	Farms reporting	Acres	Farms reporting	
			<sup>1</sup> Cropland harvested and crop failure									
			<sup>2</sup> Cropland harvested, crop failure, idle or fallow cropland, and plowable pasture.									

<sup>1</sup> Cropland harvested and crop failure

<sup>2</sup> Cropland harvested, crop failure, idle or fallow cropland, and plowable pasture.

DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON

TABLE 2.—HORSES, MULES, HOGS, AND CATTLE, ON FARMS AND RANCHES,  
CREAM, AND BUTTER, 1939; BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	Farms reporting horses and/or mules	HORSES AND COLTS OVER 3 MO. OLD				MULES AND MULE COLTS OVER 3 MO. OLD				HOGS AND PIGS OV	
			Total		Colts 3 to 27 mo. old		Total		Colts 3 to 27 mo. old		Total	S
			Farms report- ing	Number	Farms report- ing	Number	Farms report- ing	Number	Farms report- ing	Number	Farms report- ing	Number

<sup>1</sup> Sows and gilts that farrowed since Dec. 1, 1939 or to farrow before June 1, 1940.

DEPARTMENT OF COMMERCE  
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WASHINGTON

TABLE 3.—SHEEP ON FARMS AND RANCHES, WOOL SHORN  
BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	SHEEP AND LAMBS OVER 6 MO. OLD								SHEEP AND LAMBS	
		Total		Ewes						Farms report- ing	Number shorn
		Farms report- ing	Number	Farms report- ing	Number	Yearling ewes <sup>1</sup>		Other ewes			
						Farms report- ing	Number	Farms report- ing	Number		
<sup>1</sup> Between 6 and 18 mo. of age.											

<sup>1</sup> Between 6 and 18 mo. of age.

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TABLE 4.—CORN, SORGHUMS, MIXED GRAINS, AND WHEAT; BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	CORN									
		Harvested for all purposes		Harvested for grain			Cut for silage			Hogged or grazed or cut for fodder	
		Farms report- ing	Acres	Farms report- ing	Acres	Bushels	Farms report- ing	Acres	Tons	Farms report- ing	Acres

<sup>1</sup> Other than a flax and wheat mixture.

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TABLE 5.—OATS AND HAYS; BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	OATS									
		Farms report- ing any oats <sup>1</sup>	Threshed for grain			Cut and fed unthreshed		Farms report- ing any hay	Annual legumes saved for hay		
			Farms report- ing	Acres	Bushels	Farms report- ing	Acres		Farms report- ing	Acres	Tons

<sup>1</sup> Includes oats threshed for grain and oats cut for grain when ripe or nearly ripe and fed unthreshed.

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TABLE 6.—BARLEY, RYE, FLAX, BUCKWHEAT, RICE; AND IRISH POTATOES; BY COUNTIES AND MINOR CIVIL DIVISIONS

(No farms were reported in 1940 for

COUNTY AND MINOR CIVIL DIVISION	Code	BARLEY THRESHED			RYE THRESHED			FLAX THRESHED			BUCKWHEAT
		Farms reporting	Acres	Bushels	Farms reporting	Acres	Bushels	Farms reporting	Acres	Bushels	Farms reporting

1940 for Minor Civil Divisions not shown in either stub or notes)

ANCHES, APR. 1, 1940; AND COWS MILKED, PRODUCTION OF MILK AND BUTTER, AND SALES OF MILK, AND MINOR CIVIL DIVISIONS: FEDERAL FARM CENSUS, APR. 1, 1940

1940 for Minor Civil Divisions not shown in either stub or notes)

OL SHORN, AND SPECIFIED CLASSES OF POULTRY ON HAND, RAISED, AND SOLD,  
CIVIL DIVISIONS: FEDERAL FARM CENSUS, APR. 1, 1940

1940 for Minor Civil Divisions not shown in either stub or notes)

AT; BY COUNTIES AND MINOR CIVIL DIVISIONS: FEDERAL FARM CENSUS, APR. 1, 1940

in 1940 for Minor Civil Divisions not shown in either stub or notes)

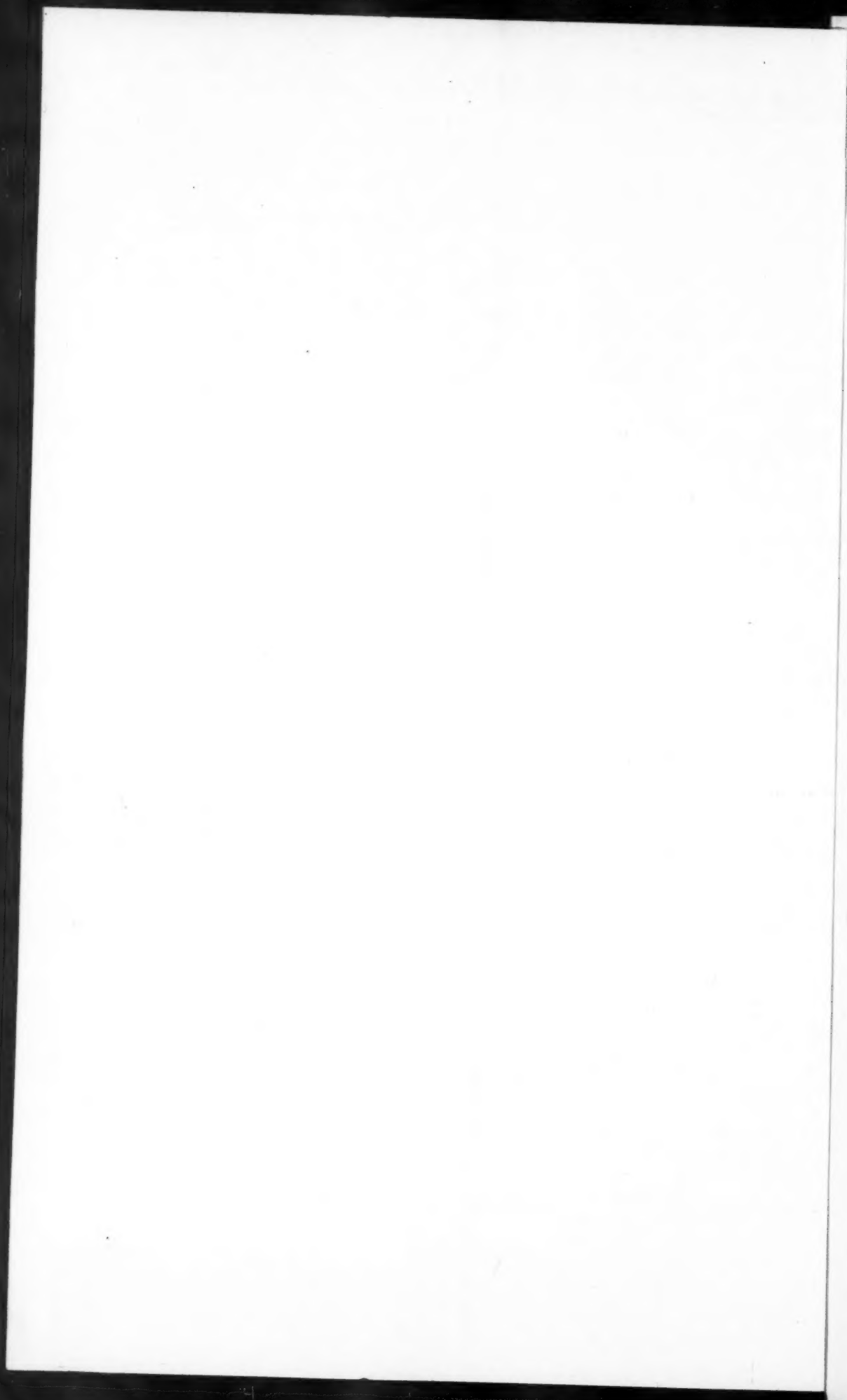
TIES AND MINOR CIVIL DIVISIONS: FEDERAL FARM CENSUS, APR. 1, 1940

n 1940 for Minor Civil Divisions not shown in either stub or notes)

D IRISH POTATOES, SWEETPOTATOES AND YAMS, TOBACCO, AND SUGAR BEETS FOR SUGAR;  
CIVIL DIVISIONS: FEDERAL FARM CENSUS, APR. 1, 1940

(in 1940 for Minor Civil Divisions not shown in either stub or notes)

[illegible]



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\*See complete directory of state directors; state and assistant state supervisors; regional or district supervisors; colored supervisors; teacher-trainers; itinerant teacher-trainers; research workers in teacher-training; supervising teachers; and colored teacher-trainers, in the December issue (separate insert).

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